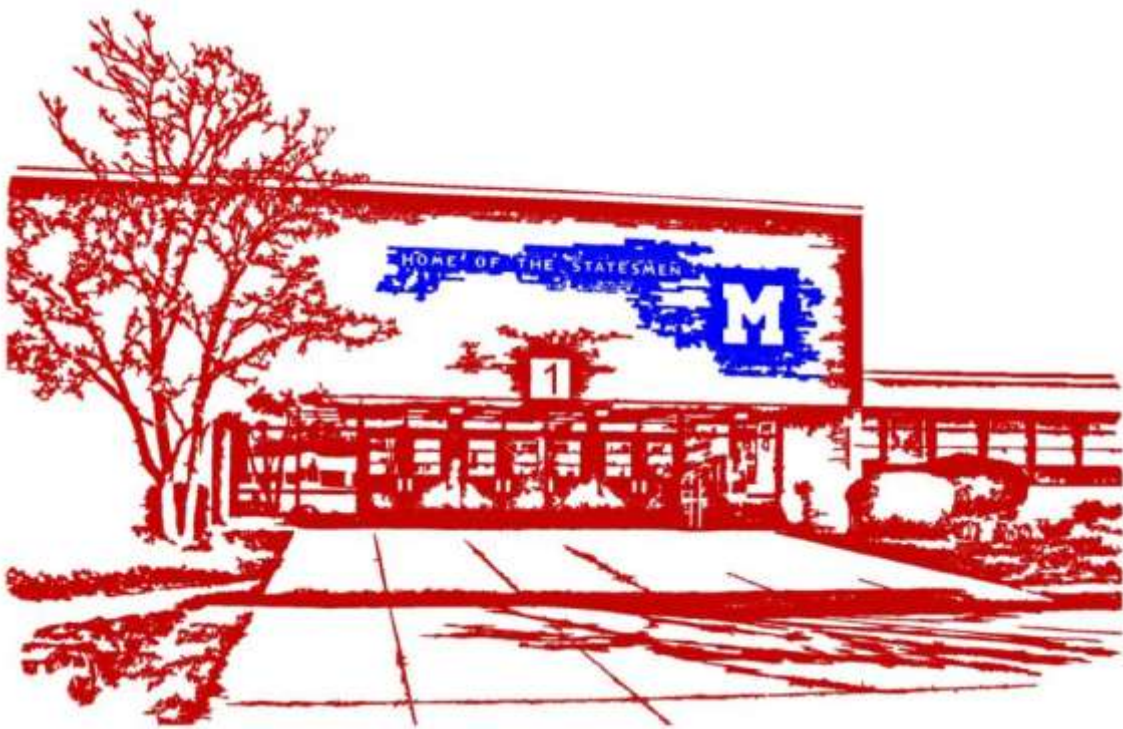

Course Description Guide

2011 - 2012



George C. Marshall High School

"Home of the Statesmen"

7731 Leesburg Pike

Falls Church, VA 22043

703-714-5400 Web Site: www.fcps.edu/MarshallHS

PRINCIPAL'S MESSAGE

I am pleased to present to our school community a combined course selection guide that integrates the FCPS standard course offerings as well as those programs unique to Marshall High School. Our school offers a wide array of programs to meet the educational, personal, and career goals of our student body. Construction of our school's 2011-2012 master schedule is based on your course selections from these programs. As a result, I encourage students and parents to work closely with our Student Services staff to carefully choose courses for the upcoming school year. Counselor assignments can be found on the Marshall High School web site www.fcps.edu/marshallhs/services/counselorsstaff. I trust that you will find this booklet useful and informative.

Sincerely,



Jay W. Pearson
Principal

PLANNING YOUR PROGRAM

Marshall High School offers several plans of study: programs for students planning to attend two or four year colleges; programs which prepare students for further education in business or technical schools; and programs which teach skills for those wishing to enter the job market immediately. Counselors assist students in planning for college and/or careers. To make realistic choices, students should also consult with parents and teachers concerning aptitudes and abilities.

While high school subjects help to prepare students for their chosen fields, careful consideration should also be given to the selection of elective courses. Electives can lead to interesting and worthwhile avocations as well as satisfying vocations. Remember that at least one credit of a fine art or Career & Technical Education (CTE) course is required for graduation. Students pursuing a standard diploma must earn two sequential electives to graduate. All students must register for seven classes. The exception to this policy is for a student enrolled in a marketing or business class who elects to take a recognized cooperative work program (co-op or COE). The importance of careful selection cannot be overemphasized. For information about career and technical education courses and FCPS Academy programs, please go to: www.fcps.edu/DIS/OCTE/index.htm.

SCHEDULE CHANGE POLICY

The counselors and teachers at Marshall High School spend a great deal of time during second semester meeting and talking with students to help them select the appropriate courses for the following year. We expect students, with input from their parents, teachers, and counselors to select their courses wisely. The number of sections of each given course that we offer is based on the number of students who request the class. Teachers are hired and assigned to classes based on students' course selections. Students and parents will have the chance in May to check the accuracy of course selection. For these reasons, we do not expect to make changes in a student's schedule once our master schedule is finalized in August. **No student may drop an IB or Honors course before the first interim because it is necessary for the student to fully engage in the curriculum.** A conference will be required for any changes to IB or Honors courses after first quarter interims are issued. **Any change in a student's schedule is always subject to seat availability.**

Counselors expect to adjust schedules only for the following reasons:

- Additions or deletions in the school's master schedule based on student enrollment and class size
- Incorrect placement by grade or course level
- Correction or conflict in a schedule
- Incomplete schedule
- Opportunity to move a student off a Waiting List
- Satisfactory completion of an approved summer school program

<i>Table of Contents</i>	
Graduation Requirement for Students Entering 9th Grade for the First Time Prior to 2011-2012	
Standard Diploma	3
Advanced Studies Diploma	4
Modified Diploma	5
Graduation Requirements for Students Entering 9th Grade for the First Time in 2011-2012 and Beyond	
Standard Diploma	7
Standard Technical Diploma	8
Advanced Studies Diploma	9
Advanced Technical Diploma	10
Modified Diploma	11
State Diploma Seals	12
Grading System	12
Grade Point Average	12
Withdrawal Policy	13
Pass/Fail Option	13
Promotion Policy	13
Languages Proficiency Credit	14
Post Secondary Planning	14
Advanced Academic Programs	14
Career and Technical Education	15
Student Fees	15
Online Campus	15
International Baccalaureate Information	16
Academies	17
Business and Information Technology	18
Culinary Arts (Family and Consumer Studies)	19
Electives, General	20
English	20
ESOL	22
Fine Arts	
Music	22
Theatre Arts	23
Visual Arts	24
Health and Physical Education	25
Marketing	25
Mathematics	28
Science	29
Social Studies	31
Special Education	32
Technology Education	33
Trade and Industrial	34
World Languages	35
A Selection of Courses Offered at Other Academies	38

NOTICE: All graduation requirements documented in the 2011-2012 Standard Course Offerings Guide reflect Virginia Department of Education and Fairfax County Public Schools' expectations at the time of publication.



**Graduation Requirements
for Students
Entering the 9th Grade
for the First Time
Prior to
2011 – 2012**

STANDARD DIPLOMA

22 CREDIT DIPLOMA REQUIREMENTS FOR GRADUATION

The requirements for a student to earn a diploma shall be those in effect when the student enters the 9th grade for the first time. The following applies to 9th grade students who entered high school prior to 2011-2012.

To graduate from high school, students shall meet the minimum requirements for the Standard Diploma as outlined below, including 22 standard credits, 6 of which must be verified credits. A **standard** credit is earned when a student passes a course. A **verified** credit is earned when a student passes a course and the associated end-of-course SOL test. In some cases, students may utilize substitute tests, certifications, or the appeal process to earn verified credits. State guidelines prescribe the number of verified credits required for graduation for students entering a Virginia public high school for the first time during the tenth grade or after. Consult your school counselor for specific information.

Students receive credit toward graduation for high school courses taken and passed in middle school. These courses count toward credits in the required sequences as well as toward the total number of credits required for graduation and calculation of the grade point average (GPA). **Middle school parents may request that grades for any high school credit-bearing course taken in the middle school be removed from the student's high school transcript, and therefore the student will not earn high school credit for the course. In addition, the student will not be eligible for a verified credit in any course which has been removed from the transcript. The request to remove a course from the transcript must be made in writing to the middle or high school the student will attend the following year, prior to the end of the first nine weeks.**

Standard Diploma Course Requirements (8 VAC 20-131-50)		
Subject Area	Standard Credits	Verified Credits
English	4	2
Mathematics ¹	3	1
Laboratory Science ^{2,6}	3	1
History and Social Sciences ^{3,6}	4	1
Health and Physical Education	2	
Fine Arts or Career and Technical Ed	1	
Electives ⁴	5	
Student Selected Test ⁵		1
Total Credits	22	6

¹Courses completed to satisfy this requirement shall be at or above the level of algebra and shall include at least two course selections from among Algebra I, Geometry, Algebra II, or other mathematics courses above the level of algebra and geometry. The Board of Education may approve additional courses to satisfy this requirement.

² Courses completed to satisfy this requirement shall include course selections from at least three different science disciplines: earth sciences, biology, chemistry, or physics. The Board may approve additional courses to satisfy this requirement.

³ Courses completed to satisfy this requirement are U.S. and Virginia History, U.S. and Virginia Government, and World History/Geography I and World History/Geography II. AP World History satisfies the requirement for World History/Geography II.

⁴ Courses to satisfy this requirement shall include at least two sequential electives.

⁵ A student may utilize additional tests for earning verified credit in computer science, technology, career and technical education or other areas as prescribed by the Board of Education in 8 VAC 20-131-110.

⁶ Students who complete a career and technical education program sequence and pass an examination or occupational competency assessment in a career and technical education field that confers certification or an occupational competency credential from a recognized industry, or trade or professional association or acquires a professional license in a career and technical educational field from the Commonwealth of Virginia may substitute the certification, competency credential, or license for (i) the student selected verified credit and (ii) either a science or history and social sciences verified credit when the certification, license, or credential confers more than one verified credit. The examination or occupational competency assessment must be approved by the Board of Education as an additional test to verify student achievement.

ADVANCED STUDIES DIPLOMA

24 CREDIT DIPLOMA REQUIREMENTS FOR GRADUATION

The requirements for a student to earn a diploma shall be those in effect when the student enters the 9th grade for the first time. The following applies to 9th grade students who entered high school prior to 2011-2012.

To graduate from high school with an Advanced Studies Diploma, students shall meet the minimum requirements as outlined below which include 24 credits, 9 of which must be verified credits. A **standard** credit is earned when a student passes a course. A **verified** credit is earned when a student passes a course and the associated end-of-course SOL test. In some cases, students may utilize substitute tests or certifications to earn verified credits. State guidelines prescribe the number of verified credits required for graduation for students entering a Virginia public high school for the first time during tenth grade or after. Consult your school counselor for specific information.

Students receive credit toward graduation for high school courses taken and passed in middle school. These courses count toward credits in the required sequences as well as toward the total number of credits required for graduation and calculation of the grade point average (GPA). **Middle school parents may request that grades for any high school credit-bearing course taken in the middle school be removed from the student's high school transcript, and therefore the student will not earn high school credit for the course. In addition, the student will not be eligible for a verified credit in any course which has been removed from the transcript. The request to remove a course from the transcript must be made in writing to the middle or high school the student will attend the following year prior to the end of the first nine weeks.**

Advanced Studies Diploma Course Requirements (8 VAC 20-131-50)		
Subject Area	Standard Credits	Verified Credits
English	4	2
Mathematics ¹	4	2
Laboratory Science ²	4	2
History and Social Science ³	4	2
*World Language ⁴	3	
Health and Physical Education	2	
Fine Arts or Career and Technical Ed	1	
Electives	2	
Student Selected Test ⁵		1
Total Credits	24	9

*Foreign Language is designated World Language in Fairfax County Public Schools.

¹For students who entered prior to 2010-2011: Courses completed to satisfy this requirement shall be at or above the level of algebra and shall include at least three course selections from among Algebra I, Geometry, Algebra II, or other mathematics courses above the level of algebra and geometry. The Board of Education may approve additional courses to satisfy this requirement.

^{1a}For students who entered during 2010-2011: Courses completed to satisfy this requirement shall include at least three different course selections from among Algebra I, Geometry, Algebra II, or other mathematics courses above the level of Algebra II. The Board of Education shall approve additional courses to satisfy this requirement.

²Courses completed to satisfy this requirement shall include course selections from at least three different science disciplines from among: earth sciences, biology, chemistry, or physics or completion of the sequence of science courses required for the International Baccalaureate Diploma. The Board may approve additional courses to satisfy this requirement.

³Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and World History/Geography I and World History/Geography II. AP World History satisfies the requirement for World History/Geography II.

⁴Courses completed to satisfy this requirement shall include three years of one language or two years of two languages.

⁵A student may utilize additional tests for earning verified credit in computer science, technology, career or technical education or other areas as prescribed by the Board in 8 VAC 20-131-110.

MODIFIED STANDARD DIPLOMA

20 CREDIT DIPLOMA REQUIREMENT FOR GRADUATION

The requirements for a student to earn a diploma shall be those in effect when the student enters the ninth grade for the first time. The following applies to 9th grade students who entered high school in 2000-2001 and beyond.

The Modified Standard Diploma is intended for certain students who have a disability and are unlikely to meet the credit requirements for a Standard Diploma. Eligibility and participation in the Modified Standard Diploma program shall be determined by the student’s Individual Education Program (IEP) team including the student, when appropriate, at any point after the student’s eighth grade year. There are no verified credit requirements for the Modified Standard Diploma. Students pursuing the Modified Standard Diploma are required to meet literacy and numeracy requirements on the 8th grade English reading and mathematics Standards of Learning (SOL) tests. Students may substitute a higher level high school SOL test for the 8th grade SOL tests for the literacy and numeracy requirements.

A student who has chosen to pursue a Modified Standard Diploma shall also be allowed to pursue the Standard Diploma, Advanced Studies Diploma, or Standard Technical Diploma or Advanced Technical Diploma (based on year of entry into 9th grade) at any time throughout the high school career. The student may not be excluded from courses and tests required to earn a Standard, Advanced Studies, Standard Technical, or Advanced Technical Diploma.

Modified Standard Diploma Course Requirements (8 VAC 20-131-50)	
Subject Area	Standard Credits
English	4
Mathematics ¹	3
Science ²	2
History and Social Sciences ³	2
Health and Physical Education	2
Fine Arts or Career and Technical Ed.	1
Electives ⁴	6
Total Credits	20

¹ Courses completed to satisfy this requirement shall include content from among applications of algebra, geometry, personal finance, and probability and statistics in courses that have been approved by the Board of Education.

² Courses completed shall include content from at least two of the following: applications of earth science, biology, chemistry, or physics in courses approved by the Board.

³ Courses completed to satisfy this requirement shall include one unit of credit in U.S. and Virginia History and one unit of credit in U.S. and Virginia Government in courses approved by the Board.

⁴ Courses to satisfy this requirement shall include at least two sequential electives in the same manner required for the Standard Diploma.

Declaration of Nondiscrimination

No student, employee, or applicant for employment in the Fairfax County Public Schools shall, on the basis of race, color, sex, religion, national origin, marital status, disability, or age (under certain conditions), be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity. Compliance is coordinated by the directors of the following: Office of Design and Construction Services (571-423-2280) regarding access to facilities; Office of Equity and Compliance (571-423-3050 or dial 711 for access to Telecommunications Relay Services (TRS)), regarding equal employment opportunity, discrimination, and sexual harassment issues; Due Process and Eligibility (703-317-3000), Department of Special Services, regarding programs and activities for students with disabilities. Correspondence may be addressed to the above offices and sent to 8115 Gatehouse Road, Falls Church, Virginia 22042.



**Graduation Requirements
for Students
Entering the 9th Grade
for the First Time
in
2011 – 2012
and Beyond.**

STANDARD DIPLOMA

22 CREDIT DIPLOMA REQUIREMENTS FOR GRADUATION

The requirements for a student to earn a diploma shall be those in effect when the student enters the 9th grade for the first time. The following applies to 9th grade students who enter high school in 2011-2012 and beyond.

To graduate from high school, students shall meet the minimum requirements for the Standard Diploma as outlined below, including 22 standard credits, 6 of which must be verified credits. A **standard** credit is earned when a student passes a course. A **verified** credit is earned when a student passes a course and the associated end-of-course SOL test. In some cases, students may utilize substitute tests, certifications, or the appeal process to earn verified credits. State guidelines prescribe the number of verified credits required for graduation for students entering a Virginia public high school for the first time during the tenth grade or after. Consult your school counselor for specific information.

Students receive credit toward graduation for high school courses taken and passed in middle school. These courses count toward credits in the required sequences as well as toward the total number of credits required for graduation and calculation of the grade point average (GPA). **Middle school parents may request that grades for any high school credit-bearing course taken in the middle school be removed from the student's high school transcript, and therefore the student will not earn high school credit for the course. In addition, the student will not be eligible for a verified credit in any course which has been removed from the transcript. The request to remove a course from the transcript must be made in writing to the middle or high school the student will attend the following year, prior to the end of the first nine weeks.**

Standard Diploma Course Requirements (8 VAC 20-131-50)		
Subject Area	Standard Credits	Verified Credits
English	4	2
Mathematics ¹	3	1
Laboratory Science ^{2,6}	3	1
History and Social Sciences ^{3,6}	4	1
Health and Physical Education	2	
*World Language, Fine Arts or Career and Technical Ed ⁷	2	
Economics & Personal Finance	1	
Electives ⁴	3	
Student Selected Test ⁵		1
Total Credits	22	6

*Foreign Language is designated World Language in Fairfax County Public Schools.

¹ Courses completed to satisfy this requirement shall include at least two different course selections from among: Algebra I, Geometry, Algebra II, or other mathematics courses above the level of Algebra II. The Board of Education shall approve additional courses to satisfy this requirement.

² Courses completed to satisfy this requirement shall include course selections from at least three different science disciplines: earth sciences, biology, chemistry, or physics or completion of the sequence of science courses required for the International Baccalaureate Diploma. The Board shall approve courses to satisfy this requirement.

³ Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and World History/Geography I and World History/Geography II. AP World History satisfies the requirement for World History/Geography II.

⁴ Courses to satisfy this requirement shall include at least two sequential electives as required by the Standards of Quality.

⁵ A student may utilize additional tests for earning verified credit in computer science, technology, career and technical education, economics, or other areas as prescribed by the Board in 8 VAC 20-131-110.

⁶ Students who complete a career and technical education program sequence and pass an examination or occupational competency assessment in a career and technical education field that confers certification or an occupational competency credential from a recognized industry, or trade or professional association or acquires a professional license in a career and technical education field from the Commonwealth of Virginia may substitute the certification, competency credential, or license for (i) the student selected verified credit and (ii) either a science or history and social science verified credit when the certification, license, or credential confers more than one verified credit. The examination or occupational competency assessment must be approved by the Board as an additional test to verify student achievement.

⁷ Pursuant to Section 22.1-253.13:4, Code of Virginia, credits earned for this requirement shall include one credit in fine or performing arts or career and technical education.

STANDARD TECHNICAL DIPLOMA

22 CREDIT DIPLOMA REQUIREMENTS FOR GRADUATION

The requirements for a student to earn a diploma shall be those in effect when the student enters the 9th grade for the first time. The following applies to 9th grade students who enter high school in 2011-2012 and beyond.

To graduate from high school with a Standard Technical Diploma, students shall meet the minimum requirements as outlined below, including 22 standard credits, 6 of which must be verified credits. A **standard** credit is earned when a student passes a course. A **verified** credit is earned when a student passes a course and the associated end-of-course SOL test. In some cases, students may utilize substitute tests, certifications, or the appeal process to earn verified credits. State guidelines prescribe the number of verified credits required for graduation for students entering a Virginia public high school for the first time during the tenth grade or after. Consult your school counselor for specific information.

Students receive credit toward graduation for high school courses taken and passed in middle school. These courses count toward credits in the required sequences as well as toward the total number of credits required for graduation and calculation of the grade point average (GPA). **Middle school parents may request that grades for any high school credit-bearing course taken in the middle school be removed from the student's high school transcript, and therefore the student will not earn high school credit for the course. In addition, the student will not be eligible for a verified credit in any course which has been removed from the transcript. The request to remove a course from the transcript must be made in writing to the middle or high school the student will attend the following year, prior to the end of the first nine weeks.**

Standard Technical Diploma Course Requirements (8 VAC 20-131-50)		
Subject Area	Standard Credits	Verified Credits
English	4	2
Mathematics ¹	3	1
Laboratory Science ^{2,5}	3	1
History and Social Sciences ^{3,5}	4	1
Health and Physical Education	2	
Fine Arts or *World Language	1	
Economics & Personal Finance	1	
Career and Technical Education ⁴	4	
Student Selected Test ⁶		1
Total Credits	22	6

*Foreign Language is designated World Language in Fairfax County Public Schools.

¹ Courses completed to satisfy this requirement shall include at least three different course selections from among: Algebra I, Geometry, or Algebra II or other mathematics courses above the level of Algebra II. The Board of Education shall approve courses to satisfy this requirement.

² Courses completed to satisfy this requirement shall include course selections from at least three different science disciplines from among: earth sciences, biology, chemistry, or physics, or completion of the sequence of science courses required for the International Baccalaureate Diploma. The Board shall approve courses to satisfy this requirement.

³ Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and World History/Geography I and World History/Geography II. AP World History satisfies the requirement for World History/Geography II.

⁴ Courses completed to satisfy this requirement must include a career concentration as approved by the Board. If a career concentration includes a specific assessment approved by the Board and the student is eligible to take the assessment, then the student must take this assessment.

⁵ Students who complete a career and technical education program sequence and pass an examination or occupational competency assessment in a career and technical education field that confers certification or an occupational competency credential from a recognized industry or trade or professional association or acquires a professional license in a career and technical education field from the Commonwealth of Virginia may substitute the certification competency credential or license for (i) the student selected verified credit and (ii) either a science or history and social science verified credit when the certification license or credential confers more than one verified credit. The examination or occupational competency assessment must be approved by the Board as an additional test to verify student achievement.

⁶ A student may utilize additional tests for earning verified credit in computer science, technology, career and technical education, economics or other areas as prescribed by the Board in 8 VAC 20-131-110.

ADVANCED STUDIES DIPLOMA

26 CREDIT DIPLOMA REQUIREMENTS FOR GRADUATION

The requirements for a student to earn a diploma shall be those in effect when the student enters the 9th grade for the first time. The following applies to 9th grade students who enter high school in 2011-2012 and beyond.

To graduate from high school with an Advanced Studies Diploma, students shall meet the minimum requirements as outlined below which include 26 credits, 9 of which must be verified credits. Any student who meets the requirements for both the Advanced Studies and the Advanced Technical Diploma may choose between these two diplomas. A **standard** credit is earned when a student passes a course. A **verified** credit is earned when a student passes a course and the associated end-of-course SOL test. In some cases, students may utilize substitute tests or certifications to earn verified credits. State guidelines prescribe the number of verified credits required for graduation for students entering a Virginia public high school for the first time during tenth grade or after. Consult your school counselor for specific information.

Students receive credit toward graduation for high school courses taken and passed in middle school. These courses count toward credits in the required sequences as well as toward the total number of credits required for graduation and calculation of the grade point average (GPA). **Middle school parents may request that grades for any high school credit-bearing course taken in the middle school be removed from the student's high school transcript, and therefore the student will not earn high school credit for the course. In addition, the student will not be eligible for a verified credit in any course which has been removed from the transcript. The request to remove a course from the transcript must be made in writing to the middle or high school the student will attend the following year prior to the end of the first nine weeks.**

Advanced Studies Diploma Course Requirements (8 VAC 20-131-50)		
Subject Area	Standard Credits	Verified Credits
English	4	2
Mathematics ¹	4	2
Laboratory Science ²	4	2
History and Social Sciences ³	4	2
*World Language ⁴	3	
Health and Physical Education	2	
Fine Arts or Career and Technical Ed	1	
Economics & Personal Finance	1	
Electives	3	
Student Selected Test ⁵		1
Total Credits	26	9

*Foreign Language is designated World Language in Fairfax County Public Schools.

¹ Courses completed to satisfy this requirement shall include at least three different course selections from among: Algebra I, Geometry, Algebra II, or other mathematics courses above the level of Algebra II. The Board of Education shall approve courses to satisfy this requirement.

² Courses completed to satisfy this requirement shall include course selections from at least three different science disciplines from among: earth sciences, biology, chemistry, or physics or completion of the sequence of science courses required for the International Baccalaureate Diploma. The Board shall approve courses to satisfy this requirement.

³ Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and World History/Geography I and World History/Geography II. AP World History satisfies the requirement for World History/Geography II.

⁴ Courses completed to satisfy this requirement shall include three years of one language or two years of two languages.

⁵ A student may utilize additional tests for earning verified credit in computer science, technology, career or technical education, economics, or other areas as prescribed by the Board in 8 VAC 20-131-110.

ADVANCED TECHNICAL DIPLOMA

26 CREDIT DIPLOMA REQUIREMENTS FOR GRADUATION

The requirements for a student to earn a diploma shall be those in effect when the student enters the 9th grade for the first time. The following applies to 9th grade students who enter high school in 2011-2012 and beyond.

To graduate from high school with an Advanced Technical Diploma, students shall meet the minimum requirements as outlined below which include 26 credits, 9 of which must be verified credits. Any student who meets the requirements for both the Advanced Studies and the Advanced Technical Diploma may choose between these two diplomas. A **standard** credit is earned when a student passes a course. A **verified** credit is earned when a student passes a course and the associated end-of-course SOL test. In some cases, students may utilize substitute tests or certifications to earn verified credits. State guidelines prescribe the number of verified credits required for graduation for students entering a Virginia public high school for the first time during tenth grade or after. Consult your school counselor for specific information.

Students receive credit toward graduation for high school courses taken and passed in middle school. These courses count toward credits in the required sequences as well as toward the total number of credits required for graduation and calculation of the grade point average (GPA). **Middle school parents may request that grades for any high school credit-bearing course taken in the middle school be removed from the student's high school transcript, and therefore the student will not earn high school credit for the course. In addition, the student will not be eligible for a verified credit in any course which has been removed from the transcript. The request to remove a course from the transcript must be made in writing to the middle or high school the student will attend the following year prior to the end of the first nine weeks.**

Advanced Technical Diploma Course Requirements (8 VAC 20-131-110)		
Subject Area	Standard Credits	Verified Credits
English	4	2
Mathematics ¹	4	2
Laboratory Science ²	4	2
History and Social Sciences ³	4	2
*World Language ⁴	3	
Health and Physical Education	2	
Economics & Personal Finance	1	
Fine Arts or Career and Technical	1	
Career and Technical Education ⁵	3	
Student Selected Test ⁶		1
Total	26	9

*Foreign Language is designated World Language in Fairfax County Public Schools.

¹ Courses completed to satisfy this requirement shall include at least three different course selections from among: Algebra I, Geometry, Algebra II, or other mathematics courses above the level of Algebra II. The Board of Education shall approve courses to satisfy the requirement.

² Courses completed to satisfy this requirement shall include course selections from at least three different science disciplines from among: earth sciences, biology, chemistry, or physics or completion of the sequence of science courses required for the International Baccalaureate Diploma. The Board shall approve courses to satisfy this requirement.

³ Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and World History/Geography I and World History/Geography II. AP World History satisfies the requirement for World History/Geography II.

⁴ Courses completed to satisfy this requirement shall include three years of one language or two years of two languages.

⁵ Courses completed to satisfy this requirement must include a career concentration as approved by the Board. If a career concentration includes a specific assessment approved by the Board and the student is eligible to take the assessment, then the student must take this assessment.

⁶ A student may utilize additional tests for earning verified credit in computer science, technology, career or technical education, economics, or other areas as prescribed by the Board in 8 VAC 20-131-110.

MODIFIED STANDARD DIPLOMA

20 CREDIT DIPLOMA REQUIREMENT FOR GRADUATION

The requirements for a student to earn a diploma shall be those in effect when the student enters the ninth grade for the first time. The following applies to 9th grade students who entered high school in 2000-2001 and beyond.

The Modified Standard Diploma is intended for certain students who have a disability and are unlikely to meet the credit requirements for a Standard Diploma. Eligibility and participation in the Modified Standard Diploma program shall be determined by the student's Individual Education Program (IEP) team including the student, when appropriate, at any point after the student's eighth grade year. There are no verified credit requirements for the Modified Standard Diploma. Students pursuing the Modified Standard Diploma are required to meet literacy and numeracy requirements on the 8th grade English reading and mathematics Standards of Learning (SOL) tests. Students may substitute a higher level high school SOL test for the 8th grade SOL tests for the literacy and numeracy requirements.

A student who has chosen to pursue a Modified Standard Diploma shall also be allowed to pursue the Standard Diploma, Advanced Studies Diploma, or Standard Technical Diploma or Advanced Technical Diploma (based on year of entry into 9th grade) at any time throughout the high school career. The student may not be excluded from courses and tests required to earn a Standard, Advanced Studies, Standard Technical, or Advanced Technical Diploma.

Modified Standard Diploma Course Requirements (8 VAC 20-131-50)	
Subject Area	Standard Credits
English	4
Mathematics ¹	3
Science ²	2
History and Social Sciences ³	2
Health and Physical Education	2
Fine Arts or Career and Technical Ed.	1
Electives ⁴	6
Total Credits	20

¹ Courses completed to satisfy this requirement shall include content from among applications of algebra, geometry, personal finance, and probability and statistics in courses that have been approved by the Board of Education.

² Courses completed shall include content from at least two of the following: applications of earth science, biology, chemistry, or physics in courses approved by the Board.

³ Courses completed to satisfy this requirement shall include one unit of credit in U.S. and Virginia History and one unit of credit in U.S. and Virginia Government in courses approved by the Board.

⁴ Courses to satisfy this requirement shall include at least two sequential electives in the same manner required for the Standard Diploma.

Declaration of Nondiscrimination

No student, employee, or applicant for employment in the Fairfax County Public Schools shall, on the basis of race, color, sex, religion, national origin, marital status, disability, or age (under certain conditions), be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity. Compliance is coordinated by the directors of the following: Office of Design and Construction Services (571-423-2280) regarding access to facilities; Office of Equity and Compliance (571-423-3050 or dial 711 for access to Telecommunications Relay Services (TRS)), regarding equal employment opportunity, discrimination, and sexual harassment issues; Due Process and Eligibility (703-317-3000), Department of Special Services, regarding programs and activities for students with disabilities. Correspondence may be addressed to the above offices and sent to 8115 Gatehouse Road, Falls Church, Virginia 22042.

STATE DIPLOMA SEALS

1. The **Governor's Seal** shall be awarded to students who complete the requirements for an Advanced Studies or Advanced Technical Diploma with an average grade of "B" or better and successfully complete college-level coursework that will earn the student at least nine transferrable college credits in Advanced Placement (AP), International Baccalaureate (IB), Cambridge, or dual enrollment courses.
2. Students who complete the requirements for a Standard, Standard Technical, Advanced Studies, or Advanced Technical Diploma with an average grade of "A" shall receive a **Board of Education Seal** on the diploma.
3. The **Board of Education's Career and Technical Education Seal** will be awarded to students who earn a Standard, Standard Technical, Advanced Studies, or Advanced Technical Diploma and complete a prescribed sequence of courses in a career and technical education concentration or specialization that they choose and maintain a "B" or better average in those courses OR pass an examination or an occupational competency assessment in a career and technical education concentration or specialization that confers certification or occupational competency credential from a recognized industry, trade or professional association OR acquire a professional license in that career and technical education field from the Commonwealth of Virginia. The Board shall approve all professional licenses and examinations used to satisfy these requirements.
4. The **Board of Education's Seal of Advanced Mathematics and Technology** will be awarded to students who earn a Standard, Standard Technical, Advanced Studies, or Advanced Technical Diploma and (i) satisfy all of the mathematics requirements for the Advanced Studies or Advanced Technical Diploma (four units of credit including Algebra II; two verified units of credit) with a "B" average or better; and (ii) either (a) pass an examination in a career and technical education field that confers certification from a recognized industry, or trade or professional association; (b) acquire a professional license in a career and technical education field from the Commonwealth of Virginia; or (c) pass an examination approved by the Board that confers college-level credit in a technology or computer science area. The Board shall approve all professional licenses and examinations used to satisfy these requirements.
5. The **Board of Education's Seal for Excellence in Civics Education** will be awarded to students who earn a Standard, Standard Technical, Advanced Studies, or Advanced Technical Diploma and: (i) complete Virginia and United States History and Virginia and United States Government courses with a grade of "B" or higher; and, (ii) have good attendance and no disciplinary infractions as determined by local school board policies and, (iii) complete 50 hours of voluntary participation in community service or extracurricular activities. Activities that would satisfy the requirements of clause (iii) of this subdivision include: (a) volunteering for a charitable or religious organization that provides services to the poor, sick or less fortunate; (b) participating in Boy Scouts, Girl Scouts, or similar youth organizations; (c) participating in JROTC; (d) participating in political campaigns or government internships, or Boys State, Girls State, or Model General Assembly; or (e) participating in school-sponsored extracurricular activities that have a civics focus. Any student who enlists in the United States military prior to graduation will be deemed to have met this community service requirement.

(NOTE: As in the past, the Board of Education Seal and the Governor's Seal are not to be interchanged among diplomas and may only be used when the conditions cited have been met. The seal should be placed in the lower left quarter of the diploma. Students who earn the Board of Education or the Governor's Seal may also earn the Career and Technical Education, the Advanced Mathematics and Technology, or the Civics Education Seals.)

GRADING SYSTEM

Effective September 2009

FCPS adopted a new grading scale effective September 2009. Changes in the FCPS grading policy include a modified ten-point grading scale that uses pluses and minuses. An asterisk (*) is used on the transcript to distinguish B+, C+, and D+ grades earned prior to September 2009. For example, B* = B+.

A (93-100) = 4.0	B- (80-82) = 2.7	D+ (67-69) = 1.3
A- (90-92) = 3.7	C+ (77-79) = 2.3	D (64-66) = 1.0
B+ (87-89) = 3.3	C (73-76) = 2.0	F (below 64) = 0.0
B (83-86) = 3.0	C- (70-72) = 1.7	

Grading System Prior to September 2009

A (94-100) = 4.0	C (74-79) = 2.0
B+ (90-93) = 3.5	D+ (70-73) = 1.5
B (84-89) = 3.0	D (64-69) = 1.0
C+ (80-83) = 2.5	F (below 64) = 0.0

GRADE POINT AVERAGE

Grade point average (GPA) is calculated on the basis of **all courses for which high school credit has been earned or attempted, including repeated courses previously passed**. In order for a repeat course to raise a GPA, the student's grade must be higher than the one originally given. All classes appearing on the high school transcript including high school classes taken in summer school, middle school, elementary school, or online are included when calculating GPA.

Advanced Placement (AP) courses and specified International Baccalaureate (IB) courses receive an additional 1.0 added to the final grade upon successful completion of the course. Successful completion is defined as completing the course with a passing grade and completing the corresponding AP or IB exam. For example, a final grade of A in an AP/IB course shall receive 5.0 quality points for purposes of calculating grade point average.

Honors courses in mathematics, science, English, social studies, and designated Thomas Jefferson High School courses, receive an additional 0.5 weight added to the final grade upon successful completion of the course. Successful completion is defined as completing the course with a passing grade. For example, a final grade of A in an honors class shall receive 4.5 quality points. In these disciplines, students have a choice of taking either a non-weighted standard level course or the weighted honors level course.

Courses dropped will not be counted in grade point average (GPA) except when a final grade of F is received: (a) for the fourth grading period of a full-year course, or (b) for the second grading period of a semester course. A student's GPA is determined by dividing the total number of quality points earned by the number of courses included in the transcript. The grade point average is reported to three decimal places (thousandths). Fairfax County Public Schools does not rank its students.

CLASS RANK

All Students at Marshall High School are unranked. Students who complete 8 semesters with a GPA of 4.0 or higher will be designated Honor Graduates.

WITHDRAWAL POLICY

If a student drops a course during the:

1st quarter	No penalty--nothing is recorded.
2nd quarter	WP (withdrawn passing) or WF (withdrawn failing) is recorded. Exception: For semester courses a WP or F for failure is recorded.*
3rd quarter	WP or WF is recorded.
4th quarter	WP or F for failure is recorded.*

* Unless the principal approves an exception, a student may not withdraw during the final quarter if the student is passing the course.

PASS-FAIL

The Fairfax County School Board policy permits students to take certain courses on a pass-fail basis.

- With parental or guardian approval, any high school student shall be given the option of taking one elective credit per school year to be marked on a pass-fail basis. This may be applied to required health and physical education credits, world language credits, and to credits other than those required for English, social studies, mathematics, and laboratory science and specialized courses such as Principles of Engineering Technology and Senior Technology Research taught at Thomas Jefferson High School for Science and Technology.
- A double or triple-period class taken for two or three credits in the technical fields may be taken on a pass-fail basis as the one pass-fail course per year.
- No student may take more than two-single semester electives or one full-year elective per school year on the pass-fail system except as indicated above.
- Any high school student wishing to take a course as pass-fail shall indicate this by completing a "Pass-Fail Status Request Form" requiring parent approval and returning it to designated school personnel on or before the 22nd school day or by the first half of the first grading period subsequent to entering the course. Students in schools using a semester block schedule must return the parent approval form to the designated school personnel on or before the 11th school day or by the first half of the first grading period subsequent to entering the course. This decision may not be reversed.

- If a student drops a class being taken on a pass-fail basis and transfers to a new class, the student shall have 10 school days to make a decision as to whether the new class will be taken on a pass-fail basis. Students in schools using a semester block schedule shall have 5 school days to make a decision as to whether the new class will be taken on a pass-fail basis, provided it is an elective course. This decision may not be reversed.
- Grades are determined as follows:
 - "P" for an A, A-, B+, B, B-, C+, C, C-, D+, D which will receive credit but will not count in grade-point average.
 - "F" for an F which will receive no credit but will be counted in grade-point average.

PROMOTION POLICY

Middle School

To qualify for promotion, seventh and eighth grade middle school students must demonstrate knowledge and competency based upon identified standards of achievement in the four core areas of language arts, mathematics, science, and social studies. To guarantee promotion, students must demonstrate proficiency in the foundational knowledge and skills in each of the four core subject areas and earn a passing final grade based on grade level expectations.

Students who earn an "F" as a final grade in one or two core subjects are retained, at the discretion of the principal, and encouraged to participate in an intervention program. Based upon the extent to which a student demonstrates knowledge and competency of identified standards of achievement in an intervention program, he/she is promoted or retained. Students who are promoted may receive continued intervention throughout the following school year. If students do not participate in an intervention program, they are retained at the discretion of the principal.

Students who earn an "F" in three or four core courses are retained, at the discretion of the principal.

High School

The minimum requirements for placement in high school grades are as follows:

To be placed in grade:	The student must:
9	Be promoted from 8th grade
10	Earn 5 credits
11	Earn 10 credits
12	Have a planned program providing for sufficient credits to qualify for graduation the following June or August

WORLD LANGUAGES PROFICIENCY CREDIT

The Credit Exam for World Languages is given each fall to students who wish to demonstrate written proficiency in one of several languages: Amharic, Arabic, Bengali, Chinese, Farsi, French, German, Hindi, Japanese, Korean, Punjabi, Russian, Somali, Spanish, Tagalog/Pilipino, Telugu, Twi, Urdu, or Vietnamese. Students who are successful on the exam receive two world languages credits which may be used to fulfill the world languages requirements/electives of the Advanced Studies, Advanced Technical, Standard Technical or Standard Diplomas. In addition, middle school students in grades 6-8 enrolled in ESOL 5720-5730 courses may receive up to two world languages credits towards high school graduation requirements in the two-plus-two option for fulfilling the world languages requirement. High school students enrolled in ESOL 5720 courses may receive elective or up to two world languages credits toward high school graduation requirements in the two-plus-two option for fulfilling the world languages requirement. For more information on the exam, go to: www.fcps.edu/DIS/OHSICS/forlang/creditem/index.htm or contact the World Languages Team at 571-423-4602.

POST SECONDARY PLANNING

Each high school in Fairfax County Public Schools provides a sequential postsecondary planning program that focuses on the acquisition of knowledge, skills, and self-understanding necessary to achieve postsecondary goals. Students are counseled regarding opportunities for postsecondary education, financial aid and employment prior to high school graduation. The program includes career planning that assists students in developing good decision-making skills, an understanding of their interests and abilities, and knowledge of the wide range of career opportunities. To assist in the process, information and resources are provided at your school and are available online. Additionally, each high school has a staffed Career Center with current college and career resource materials.

ADVANCED ACADEMIC PROGRAMS

Advanced Academic Programs at the high school level are comprised of honors courses at the 9th and 10th grade levels, and the Advanced Placement (AP) or International Baccalaureate (IB) programs at the 10th, 11th, and 12th grade levels. Advanced Academic Programs are open to all students committed to rigorous academic work. Student transfer applications may be submitted for an AP or IB program if the base school does not offer the desired program of study. For more information on the program please visit the web site at www.fcps.edu/dss/osp/StudentRegistration/student-transfer/index.htm.

AP and IB courses are advanced-level courses with external exams. Students who take AP and IB courses are required to complete the examinations. **(For more information, see Grade Point Average.)**

The Advanced Academic program responds to the requirement of the Virginia Board of Education that each local school division plan and implement an instructional program for gifted and talented students at all levels K-12. Courses designated as honors, IB or AP fulfill this requirement.

The Fairfax County Public Schools' high school advanced academic program provides educational opportunities designed and coordinated to meet the needs, abilities, and interests of gifted and talented students. The high school gifted program provides challenging courses for students who demonstrate advanced academic ability.

Differentiated curricula and teaching strategies which stress critical thinking skills, creativity, and problem-solving are integrated into the

content of all advanced academic course offerings. The four-year sequence of courses in each of the academic disciplines, which progresses from honors to AP, and IB, provides a continuous and balanced gifted and talented program.

Advanced Placement

Centreville, Chantilly, Fairfax, Falls Church, Hayfield, Herndon, Lake Braddock, Langley, Madison, McLean, Oakton, South County, West Potomac, West Springfield, Westfield, and Woodson High Schools offer the Advanced Placement (AP) program. Individual AP courses are also offered at other high schools. All students enrolled in an AP course are required to complete the end-of-course AP exam. Students may receive college credit and/or placement based upon their exam grades. The AP program is offered in English, social studies, mathematics, science, world languages, and fine arts. AP courses are offered as open enrollment to all students committed to rigorous, academic work. Students taking at least 3 AP exams with at least a grade of 3 on each are recognized by the College Board as AP Scholars. Further information about the AP program may be obtained by contacting the school counselor or AP coordinator at the participating school.

International Baccalaureate

Annandale, Edison, Lee, Marshall, Mount Vernon, Robinson, South Lakes, and Stuart High Schools offer the International Baccalaureate (IB) Diploma. To qualify for the IB Diploma, students must select at least one subject from each of six IB subject groups including English, world languages, mathematics, science, social studies, and an elective. Students take at least 3 and not more than 4 of these subjects at higher level (HL), the others at standard level (SL). All students enrolled in an IB course are required to complete the end-of-course IB exams. IB Diploma candidates must complete 150 hours of extracurricular activities and community service, take the Theory of Knowledge course, and write a 4,000-word essay on a topic of their choice. Students in IB schools have a choice of being certificate candidates or IB Diploma candidates. Certificate candidates take one or more IB courses and the associated exam(s) and receive certificates for each IB exam with a score of "4" or better.

The IB program is offered in English, social studies, mathematics, science, world languages, fine arts, and other electives. IB courses are offered as open enrollment to all students committed to rigorous, academic work. Further information about the IB program may be obtained by contacting the school counselor or IB coordinator at the participating school. Annandale, South Lakes, Mount Vernon, and Stuart High Schools implement the IB Middle Years Program in 9th and 10th grade. Students may choose to work toward the MYP certificate which requires the completion of a personal project at the end of 10th grade and success on the MYP 10th-grade assessments.

Thomas Jefferson High School For Science And Technology

The Thomas Jefferson High School for Science and Technology is a unique Fairfax County public school offering a comprehensive college preparatory program emphasizing the sciences, mathematics, and technology. As the Governor's School for Science and Technology in Northern Virginia, the school serves students who are selected in a competitive process and intend to pursue college preparation in the sciences, engineering, or related fields. Students may obtain information about application procedures and deadlines from the School Counseling Office of their local schools or by calling Thomas Jefferson High School for Science and Technology Office of Admissions at 703-658-5823 or at: www.tjhsst.edu/abouttj/admissions/

CAREER AND TECHNICAL EDUCATION

Course descriptions for Career and Technical Education (CTE) courses can be found under Business and Information Technology, Family and Consumer Sciences, Health and Medical Sciences, Marketing, Technology Education, and Trade and Industrial in sections of the *Standard Course Offerings* guide. School counselors can provide further information on courses available at the following locations: Chantilly, Edison, Fairfax, Falls Church, Marshall, and West Potomac High School Academies, as well as at Tysons Corner Center, Fair Oaks Shopping Center, and Spring Village Residential Construction Site. Please visit the CTE web site at www.fcps.edu/DIS/OCTE/index.htm.

Fairfax County Public Schools (FCPS) has established articulation agreements' with the Art Institutes of Miami, Philadelphia, and Washington, The Culinary Institute of America, George Mason University, Johnson & Wales University, Shenandoah University, and Stratford University that allow students to take certain career and technical education classes in high school and receive advanced placement credit. In addition, FCPS has dual enrollment agreements with Northern Virginia Community College (NVCC) whereby students can earn college credits for select career and technical education classes.

FCPS ONLINE COURSES

FCPS Online Campus is a program designed to provide students with an online option for earning credits toward high school graduation. This program supports the Governor's "Early College Scholars" program by providing advanced courses to students.

Students registered in any Fairfax County Public School or alternative high school are eligible to apply to take a course through the FCPS Online Campus. These courses are for students who have scheduling conflicts or have special needs requiring web-based instruction. Tuition will be charged when a student is already scheduled to receive seven credits during the academic year or when a student enrolls in an FCPS online summer course. Students must meet all regular eligibility requirements to enroll in an FCPS online course. Students interested in enrolling in an FCPS Online Campus course should consult their school counselor for information regarding the registration process. For more information go to www.fcps.edu/DIS/onlinecampus.

The following courses are currently available on line:

Mathematics

Algebra
Algebra 1 Honors
Geometry
Geometry Honors
Algebra 2
Algebra 2 Honors
Trigonometry
Precalculus
AP Calculus AB
AP Statistics

English

Creative Writing 1
Creative Writing 2
English 9
English 9 Honors
English 10
English 10 Honors
English 11
English 12
AP English Language
AP English Literature

Science

Biology 1
Biology 1 Honors
Chemistry 1
Chemistry 1 Honors
Physics 1
Geosystems
Oceanography
AP Biology
AP Chemistry
AP Physics B

Social Studies

World History & Geography 1
World History & Geography 1 Honors
World History & Geography 2
VA & US History
VA/U.S. Government
AP U.S. Government
AP Microeconomics
AP Macroeconomics
Psychology
AP Psychology
AP US History

STUDENT FEES

Courses that require a student fee for consumable materials have been designated in this catalog. The schedule of divisionwide student fees to be charged for any elective course can be found in Notice 5922 at www.fcps.edu/Directives. Students eligible for the federal Free and Reduced-Price meals program may have course and test fees waived. For more information, see your school counselor.

INTERNATIONAL BACCALAUREATE DIPLOMA

The following course sequence is one way of fulfilling the academic requirements for the IB Diploma at Marshall High School. Because individual considerations are taken into account when designing each IB Diploma candidate's program of studies, students considering this option should schedule a planning conference with the IB coordinators no later than the second semester of grade 10. **Honors courses represent more academically challenging work and are strongly recommended for students pursuing the IB Diploma; they carry an extra 0.5 weight on the GPA. Most courses labeled "IB" carry an extra 1.0 weight on the GPA; however, there are exceptions in certain subject areas.**

The following is an example of an IB schedule. However, it is important to note there are multiple ways to accomplish the course requirements of the IB Diploma.

Grade 8:	World Language 1 (Spanish, French, Chinese, or Latin) Algebra 1 or Geometry Other courses as suggested or required by the intermediate school (GT-level courses recommended where offered)
Grade 9:	Honors English 9 World Language 2 (Spanish, French, Chinese, or Latin) Honors World History & Geography Honors Biology Honors Geometry or Geometry, or Honors Algebra II / Trig. Elective (IB candidates are encouraged to begin any IB elective prerequisites as early as possible.) Health and PE 9
Grade 10:	Honors English 10 World Language 3 Honors Comparative U.S. Government IB Chemistry I or IB Physics I Honors Algebra II with Trigonometry or Algebra II Elective Health and PE 10
Grade 11:	IB English I IB World Language I IB History of the Americas IB Science I (Biology / Chemistry / Physics / Environmental Systems) IB Mathematics (Math SL I or Math HL I) or PreCalculus IB Elective
Grade 12:	IB English II IB World Language II IB Topics in 20 th Century World History IB Science II (Biology / Chemistry / Physics / Environmental Systems) IB Mathematics II (SL II or HL II) or Math Studies IB Elective IB Theory of Knowledge



The aim of all IB programs is to “develop inquiring, knowledgeable, and caring young people who help to create a better and more peaceful world through intercultural understanding and respect . . . These programs encourage students across the world to become active, compassionate lifelong learners who understand that other people, with their differences, can also be right.”

IB learners strive to be:

Inquirers: They develop their natural curiosity. They acquire the skills necessary to conduct inquiry and research and show independence in learning. They actively enjoy learning and this love of learning will be sustained throughout their lives.

Knowledgeable: They explore concepts, ideas and issues that have local and global significance. In so doing, they acquire in-depth knowledge and develop understanding across a broad and balanced range of disciplines.

Thinkers: They exercise initiative in applying thinking skills critically and creatively to recognize and approach complex problems, and make reasoned, ethical decisions.

Communicators: They understand and express ideas and information confidently and creatively in more than one language and in a variety of modes of communication. They work effectively and willingly in collaboration with others.

Principled: They act with integrity and honesty, with a strong sense of fairness, justice and respect for the dignity of the individual, groups and communities. They take responsibility for their own actions and the consequences that accompany them.

Open-minded: They understand and appreciate their own cultures and personal histories, and are open to the perspectives, values and traditions of other individuals and communities. They are accustomed to seeking and evaluating a range of points of view, and are willing to grow from the experience.

Caring: They show empathy, compassion and respect towards the needs and feelings of others. They have a personal commitment to service, and act to make a positive difference to the lives of others and to the environment.

Risk-takers: They approach unfamiliar situations and uncertainty with courage and forethought, and have the independence of spirit to explore new roles, ideas and strategies. They are brave and articulate in defending their beliefs.

Balanced: They understand the importance of intellectual, physical and emotional balance to achieve personal well-being for themselves and others.

Reflective: They give thoughtful consideration to their own learning and experience. They are able to assess and understand their strengths and limitations in order to support their learning and personal development.

HIGH SCHOOL ACADEMIES

Advanced technical and specialized elective courses are available at Academies located at Chantilly, Edison, Fairfax, Falls Church, Marshall, and West Potomac High Schools for students interested in pursuing careers in International Studies and Business; Engineering and Scientific Technology; Health and Human Services; or Communications and the Arts. Enrollment in the Academy elective course offerings will provide juniors and seniors with career and academic preparation for future learning in college and career fields. Students enrolling in the Academy elective courses will be provided with opportunities to participate in shadowing, mentoring, and/or internships with local businesses. Transportation may be provided to Academy locations. Please check with each respective location for transportation schedules relevant to each high school academy. Refer to course descriptions in the *Standard Course Offerings* for specific information on Academy courses.

***Required Application:** <http://www.fcps.edu/DIS/OCTE/pdfs/AcademyApplicationSY11-12.pdf>

2011-2012 HIGH SCHOOL ACADEMY COURSE OFFERINGS

*CHANTILLY ACADEMY: Engineering and Scientific Technology; Health and Human Services

<http://www.fcps.edu/ChantillyAcademy/>

Air Force JROTC	Culinary Arts	Geographic Information Systems
Animal Science	Dental Careers	Girls Exploring Engineering (Engineering Sys.)
Automotive Collision Service	Early Childhood Careers	Independent Research – Engineering
Automotive Technology	Engineering Mathematics	Medical Assistant
Carpentry	Engineering Physics	Oracle
Cisco	Engineering Systems	Pharmacy Technician
Computer Systems Technology - A+	Entrepreneurship	Exploring the Language of Medicine
Cosmetology	Exploring Health Sciences	
Criminal Justice		

*EDISON ACADEMY: International Studies and Business; Engineering and Scientific Technology

<http://www.fcps.edu/EdisonAcademy>

Animal Science	Cosmetology	Hotel Marketing
Automotive Collision Service	Culinary Arts	Landscape Architecture & Turf Management
Automotive Technology	Electrical Construction & Engineering	Network Administration (Microsoft)
Computer Systems Technology - A+	Heating, Ventilation, AC, & Refrigeration	Oracle

*FAIRFAX ACADEMY: Communications and the Arts

<http://www.fcps.edu/FairfaxAcademy/>

Chinese	Korean	Professional Musical Theatre & Actor's Studio
Dance	Music and Computer Technology	Professional Photography Studio
Fashion Design	Professional Graphics Studio	Professional Television Production

*FALLS CHURCH ACADEMY: Health and Human Services

<http://www.fcps.edu/FallsChurchHS/academy/index.html>

Criminal Justice	Exploring the Language of Medicine	Pharmacy Technician
Dental Careers	Fire and Emergency Medical Sciences	Practical Nursing
Exploring Health Sciences	Medical Assistant	

*MARSHALL ACADEMY: International Studies and Business; Engineering and Scientific Technology

<http://www.fcps.edu/MarshallAcademy/>

Aerospace Science	Cosmetology	Engineering Systems
Automotive Collision Service	Criminal Justice	Entrepreneurship
Automotive Technology	Culinary Arts	Hotel Marketing
Chinese	Engineering Physics	Network Administration (Microsoft)
Computer Systems Technology - A+		

*WEST POTOMAC ACADEMY: Communications and the Arts; Health and Human Services

<http://www.fcps.edu/WestPotomacAcademy/>

Criminal Justice	Exploring the Language of Medicine	Pharmacy Technician
Dance	Fashion Design	Physical Therapy/Occupational Therapy
Dental Careers	Medical Assistant	Professional Graphics Studio
Early Childhood Careers	Music and Computer Technology	Professional Television Production
Exploring Health Sciences		

BUSINESS & INFORMATION TECHNOLOGY

COMPUTER SYSTEMS TECHNOLOGY - A+ LEVEL 1 (862233)

Fall Only

Grades: 10, 11, 12

Credit: one

Prerequisite: Computer related course or equivalent skill

Corequisite: Computer Systems Technology - A+ Level 2

Marshall Academy

Students also register for Computer Systems Technology - A+ Level 2 in the spring. Students enter the world of computer technology and gain practical experience in assembling a computer system, installing an operating system, troubleshooting computers and peripherals, and using system tools and diagnostic software. They develop skills in computer networking and resource sharing. In addition, students explore the relationships between internal and external computer components. Emphasis is placed on customer service skills and career exploration. Upon successful completion of the course, students may qualify to take the A+ certification exam. The cooperative education (Business Cooperative Internship--679920) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. For more information, visit the academy web site.

Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit.

COMPUTER SYSTEMS TECHNOLOGY - A+ LEVEL 2 (86233)

Spring Only

Grades: 10, 11, 12

Credit: one

Prerequisite: Computer related course or equivalent skill

Corequisite: Computer Systems Technology - A+ Level 1

Marshall Academy

Students also register for Computer Systems Technology - A+ Level 1 in the fall. Building on the foundation of Computer Systems Technology - A+ Level 1, this advanced course provides students with training in procedures for optimizing and troubleshooting concepts for computer systems and subsystems. Students explore wireless technologies (e.g., Bluetooth, Wi-Fi) and create and configure a network. Emphasis is placed on technical proficiency, skill-building, and workplace readiness. The course prepares students for postsecondary education and training, and a successful career in information technology. Upon successful completion of the course, students may qualify to take the A+ Certification exam. The cooperative education (Business Cooperative Internship--679920) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. For more information, visit the academy web sites.

Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit.

BUSINESS COOPERATIVE INTERNSHIP (679920, 21)

(Formerly Cooperative Office Education-COE)

Grades: 10, 11, 12

Credit: one or two

Corequisite: Student must be concurrently enrolled in a business course.

Business Cooperative Internship allows students to apply what they have learned in the classroom to the real world. The internship experience combines a business course with employment in a business-related field that reflects the student's current career interests. The program offers valuable work experience, enhances employment skills, and develops marketable skills. This course, taken in conjunction with another business course, will earn one to two units of credit. Students who successfully complete 396 hours of supervised on-the-job training in a related occupation will earn one credit. Students who successfully complete 720 hours of supervised on-the-job training in a related occupation will earn two credits.

ECONOMICS AND PERSONAL FINANCE (612000)

Grades: 9, 10, 11, 12

Credit: one

Instruction in economics and personal finance prepares students to function effectively as consumers, savers, investors, entrepreneurs, and active citizens. Students learn how economies and markets operate and how the United States' economy is interconnected with the global economy. On a personal level, students learn that their own human capital (knowledge and skills) is their most valuable resource. Students have the opportunity to gain real-world work experience operating the Statesmen Apple Federal Credit Union within the school during Lunch. The cooperative education (Business Cooperative Internship--679920) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. Beginning with students entering ninth grade in fall 2011, one standard unit of credit in Economics and Personal Finance is required for graduation.

Industry certification may be available as part of this course. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit.

IB BUSINESS AND MANAGEMENT SL (613508)

Grades: 10, 11, 12

Credit: one/weighted +1.0

Marshall Academy

The IB Business and Management SL course is designed to provide a broad introduction to the basic principles and practices of businesses and other organizations, both profit-making and nonprofit in nature. Fundamental principles and skills are studied in local, national and international context, thus affording the opportunity to reflect the differences in perspectives and cultures. Instruction includes units in introduction to business, marketing, finance, accounting, and human resource management. For students attending base schools that have the IB program, this course may serve as an elective ("Sixth Subject") in the IB Diploma program or may be taken independently for an IB certificate. These IB students are required to take the IB exam, and the course carries a weighted credit of 1.0 on the student's GPA. The cooperative education (Business Cooperative Internship--679920) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.

Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit.

IB BUSINESS AND MANAGEMENT HL (613509)

Grades: 11, 12

Credit: one/weighted +1.0

Prerequisite: IB Business and Management SL (613508)

Marshall Academy

This course is the second segment of a two-year series. It will continue and expand the curriculum of the first-year course and will require a written research project. The class is designed to promote the importance of exploring business issues from different cultural perspectives, to encourage a holistic view of the world of business, to enable the student to develop the capacity to think critically, and to enhance the student's ability to make decisions. Through the assessment of data from a variety of sources, students will identify social factors, cultural factors, and ethical considerations in the actions of organizations as well as examine the impact of the actions of organizations on the internal and external environment. For students attending base schools that have the IB program, this course may serve as an elective ("Sixth Subject") in the IB Diploma program or may be taken independently for an IB certificate. These IB students are required to take the IB exam, and the course carries a weighted credit of 1.0 on the student's GPA. The cooperative education (Business Cooperative Internship--679920) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.

Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit.

INFORMATION SYSTEMS (661200)

Grades: 9, 10, 11, 12

Credit: one

Prerequisite: Computer Solutions Digital Input Technologies or equivalent skill

This computer-based course teaches students to use technology efficiently and effectively to gather and organize information, and problem-solve tasks. Through a series of software applications and activities, students will establish a strong foundation in keyboarding techniques and proficiency, manage computer systems, produce word processing documents, develop spreadsheets, databases, and multimedia presentations; and, work with telecommunications and networks. Integrating lessons with real-life business applications and cross-curricular learning activities will enable the students to become better prepared for life-long learning and problem solving. The cooperative education (Business Cooperative Internship--679920) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.

Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit.

ADVANCED INFORMATION SYSTEMS (661300)

Grades: 9, 10, 11, 12

Credit: one

Prerequisite: Information Systems (661200), Computer Solutions (615030, 31, 32), Digital Input Technologies (660932) or equivalent skill

Advanced Information Systems provides students with the opportunity to develop professional computer and technology skills in a project-oriented and student-centered environment. Working independently or in teams, students apply problem-solving, decision-making, creative-thinking, and communication skills to relevant, real-life situations through a series of software and peripheral applications. Instruction in current and emerging information technology includes operating systems, networking and hardware principles, document preparation, presentation tools, spreadsheet analysis and charts preparation, relational database management, technical writing, desktop publishing, copyright issues, and basic web page design. Upon completion of this course, students will be able to apply technology to analyze and solve problems and to complete technology tasks efficiently and effectively. The cooperative education (Business Cooperative Internship--679920) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.

Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit.

NETWORK ADMINISTRATION 1 (665032)

Fall Only

Grades: 10, 11, 12

Credit: one

Prerequisite: Computer related course, Algebra 1, or equivalent skill

Marshall Academy

Network Administration is a comprehensive, hands-on computer course in which students are taught basic networking skills using Windows and Microsoft Server. Topics covered throughout the year include network concepts, installation, configuration, management, and troubleshooting. Network Administration is designed to teach many aspects of computer support and network administration. Students learn networking concepts, from usage to components, and set up peer-to-peer network systems and client server networks. Students install and configure network cards and connect them to networks. Students learn how to install the operating systems, set up and manage accounts, load software, and set up and implement security plans. Upon successful completion of Network Administration, students may elect to obtain industry-recognized professional certification by taking the Microsoft Certified Professional (MCP) exams leading to Microsoft Certified Systems Administrator (MCSA), Microsoft Certified Desktop Support Technician (MCDST) and Microsoft Certified Systems Engineer (MCSE). The cooperative education (Business Cooperative Internship--679920) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. For more information, visit the academy web site. **Industry**

certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit.

NETWORK ADMINISTRATION 2 (665132)

Spring Only

Grades: 10, 11

Credit: one

Prerequisite: Network Administration 1

Marshall Academy

Network Administration 2 is designed to continue teaching aspects of network administration-focusing on management and support of network users and systems. Time is spent discussing responsibilities of computer professionals, training end users, evaluating new technology, developing system policies, troubleshooting workstations, managing network services and protocols, and effectively using e-business communications. Students learn communications protocols, troubleshooting techniques for systems and client server networks, web site management and other advanced networking topics. The cooperative education (Business Cooperative Internship--679920) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. For more information, visit the academy web site. **Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit.**

WEB PAGE DEVELOPMENT (663100)

Grades: 9, 10, 11, 12

Credit: one

Prerequisite: Information Systems (661200) or equivalent skill

This course provides students the opportunity to study, develop and design sophisticated web pages in a client-based business environment. Basics of HTML, DHTML, scripting, and the use of authoring ADOBE and Microsoft software are covered. Students are also provided instruction in preparing and editing Web page images, applying advanced design techniques and features, creating vector animations, and managing web site directory structures. Skill development will be achieved through hands-on activities that help students to design web pages for various audiences and uses. The cooperative education (Business Cooperative Internship--679920) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.

Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit.

CULINARY ARTS

CULINARY ARTS 1 (827527)

Grades: 11, 12

Credit: two

Marshall Academy

This course is dedicated to providing students with a working knowledge of classical culinary techniques. Through lecture, hands-on work and projects, the students will learn the skills needed for a career in the food service industry. Training in sanitation, hot food production, meat identification and fabrication, pantry, breakfast cookery, purchasing, and basic culinary skills is offered. Curriculum also includes culinary mathematics, field trips, and competitive events. For more information, visit the academy web site.

Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. This course requires a student materials fee as listed in FCPS Notice 5922.

CULINARY ARTS 2 (827627)**Grades: 11, 12****Credit: two****Prerequisite: Culinary Arts 1 (827527)****Marshall Academy**

This course builds on the skills learned in Culinary Arts 1. Further advanced instruction in table service, baking, pastries, and management techniques is emphasized. Students create a plan for establishing a restaurant that includes menu selection and preparation, facilities design, and management components. During the second semester, selected students may participate in internship activities as an option in cooperation with the local business community. For more information, visit the academy web site. Students completing Culinary Arts 1 (827527) and Culinary Arts 2 (827627) with a grade of "B" or better may be eligible to articulate credit at Stratford University, Johnson and Wales University, or The Art Institute of Washington. **Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit. This course requires a student materials fee as listed in FCPS Notice 5922.**

ELECTIVES, GENERAL**AVID (982800)****Advancement via Individual Determination****Grades: 10****Credit: one****Prerequisite: Participants selected through application and interview process.****Corequisite: Concurrent enrollment in Algebra I or higher, world language, and at least one honors, AP, or IB course**

This course is designed to support motivated, capable students in pursuing a rigorous course of high school study leading to acceptance to and success in a four-year college or university. Through a variety of instructional techniques, students develop skills in higher-level thinking, writing across the curriculum, and reading strategies for accessing challenging course material. Students develop time management, note taking, research, organization, and other skills fundamental to success in higher-level mathematics, social studies, English, science, and world language courses. Students participate in college, career, and cultural exploration activities, including field trips.

COMPUTER TECHNOLOGY ASSISTANCE (980818)**Grades: 11, 12****Credit: one****Prerequisite: Successful completion of an introductory computer course or approval of course instructor. Technical Assistant Application. Personal Traits and Occupational Skills Rating by each current teacher.**

Computer Technology Assistance is an elective course open to students who have a fundamental level of computer hardware and software knowledge. Students will learn advanced level concepts of computer architecture, computer operating systems, network concepts, software maintenance, and advanced computer troubleshooting techniques as they apply their knowledge to the maintenance and support of computers within the school. Students will maintain a weekly journal of their learning experiences that will serve as documentation for potential employment opportunities.

IB THEORY OF KNOWLEDGE (982008, 982018 – evening)**Grades: 11, 12****Credit: one/weighted +1.0****Prerequisite: Enrollment in the IB program**

The IB Theory of Knowledge (TOK) course challenges students in the areas of critical thinking and integration of knowledge. The focus of the TOK course is studying what we know in the various fields of knowledge and how we know it. Students are led to make connections among their classroom and non-classroom knowledge and experience, and they examine the ethics, value judgments, and belief systems of the various disciplines. Students develop a critical awareness of the fields of knowledge; study the procedures, processes, and methodologies of each field; recognize the biases inherent in each discipline; understand and appreciate the importance of inquiry as a basis for knowledge; and apply standards of logic and reasoned argument to intellectual problems. Topic of study include comparing four ways of knowing, reason, sense perception, language and emotion; understanding different knowledge systems: mathematics, natural sciences, human sciences, and history, and understanding value judgment, bias, and culture across disciplines. This course carries a weighted grade.

LEADERSHIP TRAINING 1 (980800)**Student Government****Grades: 9, 10, 11, 12****Credit: one**

This course provides leadership training to interested students. It is especially appropriate for student body officers, organizational leaders, and class officers. The course includes understanding leadership, assessment of leadership styles, planning and organization skills, relationship building and problem solving. Focus will be placed on organization, time management, election processes, financial planning, opinion surveys, communication techniques, and community liaison. Student government and class activities will be the basis around which most of the course work is designed.

ENGLISH**EXPANDING LITERACIES 1 (151500)****Grades: 10, 11****Credit: one**

Expanding Literacies provides direct remediation of reading skills and English content necessary to pass the EOC English: Reading/Literature and Research and/or the EOC English: Writing SOL tests, which are given in eleventh grade. Verified credit on both tests is required in order to earn a Standard Diploma. Counts as a sequential elective when taken after Developing Literacies.

CREATIVE WRITING 1 (117100)**Grades: 9, 10, 11, 12****Credit: one**

This course provides students an opportunity for additional writing instruction beyond the standard English program. Experimentation with many forms of writing is encouraged, with an emphasis on poetry, short stories, plays, and all forms of descriptive writing. Students continue to expand and refine their ability to write through analyzing and evaluating their own writing and that of other students. Students may also participate in the layout, design, and overall production of a high school literary magazine.

ENGLISH 9 (113000)**Grades: 9****Credit: one****Prerequisite: English 8**

Students read and analyze a variety of literary and nonfiction texts, exploring the characteristics of different forms and the techniques authors use to achieve their intended purpose. Language study extends students' vocabulary through learning about connotations, denotations, word origins, and structures. Students apply their understanding of grammar, capitalization, punctuation, spelling, sentence structure, and paragraphing to varied and frequent writing assignments. Through narrative, expository, and persuasive writings, students build on their understanding of writing as a process of prewriting, drafting, revising, and publishing. In the research process, students find, evaluate, and select appropriate sources to access information to create a research product. They also develop communication skills through listening to and practicing oral presentations. (This is a Standards of Learning aligned course, which is tested in 11th grade.)

ENGLISH 9 HONORS (113036)**Grades: 9****Credit: one/weighted +.5****Prerequisite: English 8**

English 9 Honors deepens and advances the curriculum of English 9. Students read and analyze a variety of literary and nonfiction texts, exploring the characteristics of different forms and the techniques authors use to achieve their intended purpose. Language study extends students' vocabulary through learning about connotations, denotations, word origins, and structures. Students apply their understanding of grammar, capitalization, punctuation, spelling, sentence structure, and paragraphing to varied and frequent writing assignments. Through narrative, expository, and persuasive writings, students build on their understanding of writing as a process of prewriting, drafting, revising, and publishing. In the research process, students find, evaluate, and select appropriate sources to access information to create a research product. They also develop communication skills through listening to and practicing oral presentations. (This is a Standards of Learning aligned course, which is tested in 11th grade.)

ENGLISH 10 (114000)**Grades: 10****Credit: one****Prerequisite: English 9**

Students read and analyze a variety of literary and nonfiction texts, comparing and contrasting the techniques authors use in literature of different cultures and eras. Language study continues to extend students' vocabulary through learning about connotations, denotations, word origins, and structures. Students apply their understanding of grammar, capitalization, punctuation, spelling, sentence structure, and paragraphing to varied and frequent writing assignments. With an emphasis on expository

and analytic writing, students expand their understanding of writing as a process and develop their skills in revising to address a specific audience and purpose. In the research process, students collect, evaluate, organize, and present accurate and valid information to create a research product. They also improve communication and collaboration skills through small and large group discussions and presentations. (This is a Standards of Learning aligned course, which is tested in 11th grade.)

ENGLISH 10 HONORS (114036)

Grades: 10 **Credit: one/weighted +.5**

Prerequisite: English 9

English 10 Honors deepens and advances the curriculum of English 10. Students read and analyze a variety of literary and nonfiction texts, comparing and contrasting the techniques authors use in literature of different cultures and eras. Language study continues to extend students' vocabulary through learning about connotations, denotations, word origins, and structures. Students apply their understanding of grammar, capitalization, punctuation, spelling, sentence structure, and paragraphing to varied and frequent writing assignments. With an emphasis on expository and analytic writing, students expand their understanding of writing as a process and develop their skills in revising to address a specific audience and purpose. In the research process, students collect, evaluate, organize, and present accurate and valid information to create a research product. They also improve communication and collaboration skills through small and large group discussions and presentations. (This is a Standards of Learning aligned course, which is tested in 11th grade.)

ENGLISH 11 (115000)

Grades: 11 **Credit: one**

Prerequisite: English 10

Students read and analyze a variety of literary and nonfiction texts, comparing themes of various works and analyzing expository materials to draw conclusions. Language study continues through the application of rules for sentence formation, usage, spelling, and mechanics. Students apply their understanding of grammar, capitalization, punctuation, spelling, sentence structure, and paragraphing to varied and frequent writing assignments. With an emphasis on persuasive writing, students apply their skills and adapt content, vocabulary, voice, and tone to a specific audience and purpose. In the research process, students analyze, evaluate, synthesize, and organize information from a variety of sources to produce a research product. They also refine their oral communication skills through gathering and organizing evidence to support a position in informative and persuasive presentations. **Students are required to take the Standards of Learning End of Course Test.**

IB ENGLISH I HL (115009)

Grades: 11 **Credit: one/weighted +1.0**

Prerequisite: English 10

This is the first year of a two-year intensive college-level study of language and literature in English. Over these two years students develop their analytical and creative powers of expression, both in oral and written communication. They practice the skills involved in writing and speaking in a variety of styles and situations, using English as a means of effective communication and as a key to the study of other disciplines. Students are introduced not only to major classical works of literature, but also to a range of contemporary writing. They also study different genre, styles, and contexts through the comparative study of works from various cultures. IB English 1 HL together with IB English 2 HL prepares students for the higher level exam. **Students are required to take the Standards of Learning End of Course Test.**

ENGLISH 12 (116000)

Grades: 12 **Credit: one**

Prerequisite: English 11

Students read and analyze a variety of literary texts, recognizing major forms and their stylistic elements. Using nonfiction texts, students will analyze and synthesize information to solve problems. Language study expands students' general and specialized vocabulary through speaking, listening, reading, and viewing. Writing will include the production of informational, expository, and persuasive/argumentative papers, logically organized demonstrating knowledgeable judgments, and effective conclusions. They also apply their oral communication skills to craft formal oral presentations and their listening skills to analyze the relationships among purpose, audience and content of presentations.

ENGLISH 12 - Dual Enrollment NOVA (1160DE)

Grades: 12 **Credit: one**

Prerequisite: English 11 and completion of the Northern Virginia Community College on-line English proficiency test.

Students will earn FCPS high school graduation course credit, and will earn university/college credit with a final course grade of a "C" or higher. This course will have a required tuition fee. See your school counselor for more details. **Attendance at the interest meeting and NOVA placement testing are mandatory for enrollment in this course.**

IB ENGLISH II HL (116009)

Grades: 12 **Credit: one/weighted +1.0**

Prerequisite: IB English 1

This is the second year of a two-year course in which students continue a rigorous study of language and literature in English. They demonstrate an increasing proficiency in creative and analytical thinking skills through reading, writing and speaking. They develop an understanding of the techniques involved in literary study and criticism, and engage in a detailed and critical examination of written works from world literature. Students develop an appreciation for, and lifelong interest in literature and language. Students are required to take the higher level English A1 IB exam.

DEVELOPING LITERACIES (118060)

Grades: 9 **Credit: one**

Developing Literacies provides direct remediation of content area reading skills necessary to understand the content of mathematics, science, social studies, and English. The course focuses on the reading skills necessary for successful completion of the SOL tests given in the four core areas.

JOURNALISM 1 (120000)

Grades: 9, 10, 11, 12 **Credit: one**

In Journalism 1 students learn the history and language of journalism; develop communication skills in writing, designing and editing for a variety of media; understand news and the process of publication; and become more critical readers and viewers of mass media.

JOURNALISM 2 (121000)

Grades: 10, 11, 12 **Credit: one**

Prerequisite: Journalism 1

In Journalism 2 students learn and apply techniques of layout, design and desktop publishing. Students develop a more sophisticated level of journalistic writing and participate in the operation and production of the high school newspaper and/or student produced webpage. This course requires some after school time.

JOURNALISM 3 (121100)

Grades: 11, 12 **Credit: one**

Prerequisite: Journalism 2

In addition to enhancing their skills as reporters, students in Journalism 3 learn the role of editorial leadership, develop a personal sense of professionalism, understand the role of the newspaper in society, and become productive members of the newspaper and/or student produced webpage staff. Students also learn business and circulation management. This course requires some after school time.

JOURNALISM 4 (121200)

Grades: 12 **Credit: one**

Prerequisite: Journalism 3

In Journalism 4 students learn marketable publications skills; develop individual writing, layout, and design styles; and may assume editorial leadership and responsibility for producing a high school newspaper and/or student produced webpage. Journalism 4 students will also take responsibility for being the chief spokespeople for the publication. Students also take responsibility for business and circulation management. This course requires some after school time.

PHOTOJOURNALISM 1 (121500)

Grades: 10, 11, 12 **Credit: one**

Prerequisite: Journalism 1 or instructor permission

In Photojournalism 1, students learn the principles of interviewing, copywriting, photography, layout, and design. Students will use publishing software to create pages for the school's yearbook. This course requires some after-school time.

PHOTOJOURNALISM 2 (121600)

Grades: 11, 12 **Credit: one**

Prerequisite: Photojournalism 1

In Photojournalism 2, students develop their copywriting skills and advance their photography and design skills as they create pages for the school's yearbook. They may become section editors. This course requires some after-school time.

PHOTOJOURNALISM 3 (121700)**Grades: 11, 12****Credit: one****Prerequisite: Photojournalism 2**

In Photojournalism 3, students refine their copywriting skills and advance their computer and photography skills, develop individual style, and may assume leadership roles as members of the yearbook staff's editorial board. This course requires some after-school time.

IB FILM STUDY I SL (144608)**Grades: 11****Credit: one/weighted +1.0**

This is the first year of a two-year course that involves the study of international film texts, film theory, and practical exercises in filmmaking and analysis. At the core of the IB film course lies a concern with clarity of understanding, critical thinking, reflective analysis, effective involvement, and imaginative synthesis that is achieved through the practical engagement of film. Students are required to create film projects as well as analyze film in writing and oral presentations. IB Film Study 1 SL together with IB Film Study 2 SL prepares students for the standard level exam.

IB FILM STUDY I HL (144609)**Grades: 11****Credit: one/weighted +1.0**

This is the first year of a two-year course that involves the study of international film texts, film theory, and practical exercises in filmmaking and analysis. At the core of the IB film course lies a concern with clarity of understanding, critical thinking, reflective analysis, effective involvement, and imaginative synthesis that is achieved through the practical engagement of film. Students are required to create film projects as well as analyze film in writing and oral presentations. HL students expand their understanding through extended film analysis as well as more extensive and a wider variety of film projects. IB Film Study 1 HL together with IB Film Study 2 HL prepares students for the higher level exam.

ENGLISH FOR SPEAKERS OF OTHER LANGUAGES

ESOL LEVEL 1 ENTERING (571011, 12, 13)**Grades: 9, 10, 11****Credit: three**

Students engage in listening, speaking, reading and writing English through an integrated language arts curriculum. They take three periods of ESOL classes: two content-based and one literature-based. Students develop language and literacy skills and basic content vocabulary. Students enrolled in this course also take 571012 and 571013. Students in these courses may also enroll in World Concepts (299660) and/or Concepts Science (462260). These courses earn elective credit and may be repeated.

ESOL LEVEL 2 BEGINNING (571014, 15, 16)**Grades: 9, 10, 11****Credit: three**

Students engage in listening, speaking, reading and writing English through an integrated language arts and content curriculum. Emphasis is placed on building background knowledge and developing academic language proficiency. Students take three periods of ESOL classes: two content-based and one literature-based. Students enrolled in this course also take 571015 and 571016. It is recommended that students in this course also enroll in World History Concepts and Concepts Science. These courses earn elective credits and may be repeated for additional elective credits.

ESOL LEVEL 2/3 BEGINNING/DEVELOPING (571017, 18, 19)**Grades: 9, 10, 11****Credit: one**

Students engage in listening, speaking, reading and writing English through an integrated language arts and content curriculum. Emphasis is placed on developing academic language proficiency, improving reading comprehension and increasing writing fluency. Students take three periods of ESOL classes: two content-based and one literature-based. Students enrolled in this course also take 571018 and 571019. Based on the ESOL department chair's recommendation, students also enroll in World Concepts (299660) or World History and Geography 1 (235194) and Concepts Science (462260) or Biology (431094). These courses earn elective credits and may be repeated for additional elective credits.

ESOL LEVEL 3 DEVELOPING (572091, 92)**Grades: 9, 10, 11****Credit: two**

Students continue to develop listening, speaking, reading, and writing skills. They read more challenging fiction and non-fiction texts to increase academic vocabulary. Emphasis is placed on developing reading, writing, and learning strategies to support academic content classes. Students enrolled in 572091 also take 572092. 572091 is a literature-based class and

572092 is a content-based class which supports academic language development. These courses may be repeated for elective credit.

ESOL LEVEL 4 EXPANDING (573000)**Grades: 9, 10, 11****Credit: one**

This course is taken concurrently with Transitional English 9 or English 9. ESOL and English teachers work together to provide a comprehensive program based on the English 9 POS. Students read a variety of literature and relate life situations to literary themes. They continue to develop their reading and writing skills and study the structure of the English language through an integrated language arts curriculum. Students refine their listening and speaking skills through class discussions and oral presentations. After completing this course, a student may be recommended for exit from the ESOL program. This course may be repeated for elective credit.

FINE ARTS

MUSIC

INTERMEDIATE BAND (923315)**Level 1****Grades: 9, 10, 11, 12****Credit: one****Prerequisite: Beginning Band or successful audition**

Students continue developing as individual musicians and as members of a musical group. Emphasis is placed on the development of intermediate level technical and ensemble skills necessary for performance. Marching band techniques and performances may be included. Students must meet both the school day and after-school participation requirements to receive credit for the course.

ADVANCED BAND (923417)**Level 3****Grades: 9, 10, 11, 12****Credit: one****Prerequisite: Successful audition**

Students in this course form the representative performing band for the school. Emphasis is placed on the sequential development of advanced technical skills and on the study of related literature. Based on successful completion of sequential concepts for each level, students will continue as specified in course level. Marching band techniques, rehearsals, and performances are included in this course. Students must meet both the school day and after-school participation requirements to receive credit for the course.

GUITAR 1 (924515)**Grades: 9, 10, 11, 12****Credit: one****Prerequisite: none**

Students learn the fundamentals of guitar. Guitar instruction emphasizes basic technique, reading, progressions, and music theory. Instructional literature is selected from classical and contemporary repertoire. Guest artists and field trips to performances and/or seminars may also be part of the curriculum. **This course requires a student materials fee as listed in FCPS Notice 5922.**

GUITAR 2 (924516)**Grades: 9, 10, 11, 12****Credit: one****Prerequisite: Successful audition or successful completion of Guitar 1 or permission of the instructor**

Students continue to develop skills on the guitar. Guitar instruction emphasizes intermediate technique, reading, progressions, and music theory. Instructional literature is selected from classical and contemporary repertoire. Guest artists and field trips to performances and/or seminars may also be part of the curriculum. **This course requires a student materials fee as listed in FCPS Notice 5922.**

PIANO LAB 1 (925515) LAB 2 (925516) LAB 3 (925517)**Grades: 9, 10, 11, 12****Credit: one**

Students learn the fundamentals of keyboard instruments. Keyboard instruction includes the study of scale patterns and knowledge of harmonic progressions, as well as individual practice on a keyboard instrument. Instructional literature is selected from classical and contemporary repertoire. Guest artists and field trips to performances and/or seminars may also be part of the curriculum. Beginning, intermediate, and advanced levels may be offered, depending on curriculum needs and student enrollment. Student performance may be required. **Fee: \$15.00 for Materials**

BEGINNING ORCHESTRA (923715)**Grades: 9, 10, 11, 12****Credit: one**

Students develop skills as individual musicians and as members of a musical group. Course content includes beginning level technical and ensemble skills necessary for performance. Some performance opportunities are provided. Students must meet both the school day and after-school participation requirements to receive credit for the course.

Fee: \$40.00 Uniform Rental**INTERMEDIATE ORCHESTRA (923815)****Level 1****Grades: 9, 10, 11, 12****Credit: one****Prerequisite: Attainment of beginning level skills and permission of instructor**

The course offers instruction in the development of intermediate and advanced performing skills, including individual playing and ensemble techniques, and disciplinary skills needed for performance. Students must meet both the school day and after-school participation requirements to receive credit for the course. **Fee: \$40.00 Uniform Rental**

ADVANCED ORCHESTRA (923915)**Level 1****Grades: 9, 10, 11, 12****Credit: one****Prerequisite: Successful audition**

Students in this course form the representative string performing group for the school. Emphasis is placed on the development of technical, ensemble, and disciplinary skills necessary for refined rehearsal and performance both in and out of school. Based on successful completion of sequential concepts for each level, students will continue as specified in course level. Students must meet both the school day and after-school participation requirements to receive credit for the course. **Fee: \$40.00 Uniform Rental**

MIXED CHORUS (926015)**Grades: 9, 10, 11, 12****Credit: one****Prerequisite: None – no audition required**

Beginning level students will participate in a chorus of mixed voices. Emphasis is placed upon correct vocal performance techniques and sight-singing through the study of appropriate choral literature. Students must meet both the school day and after-school participation requirements to receive credit for the course. **This course requires a student materials fee as listed in FCPS Notice 5922.**

WOMEN'S CHORUS (926016)**Grades: 9, 10, 11, 12****Credit: one****Prerequisite: Audition Required**

Beginning level students will participate in a chorus of women's voices. Emphasis is placed upon correct vocal performance techniques and sight-singing through the study of appropriate choral literature. Students must meet both the school day and after-school participation requirements to receive credit for the course. **This course requires a student materials fee as listed in FCPS Notice 5922.**

VOCAL ENSEMBLE (928015)**Grades: 9, 10, 11, 12****Credit: one****Prerequisite: Audition Required**

This class is designed to meet specific needs and/or interests. Content includes study of the appropriate ensemble literature, and rehearsal and performance techniques from the various areas of musical composition. Schools may also require membership in intermediate or advanced choral class. Voicing of the group is at the discretion of the instructor. Students must meet both the school day and after-school participation requirements to receive credit for the course. **This course requires a student materials fee as listed in FCPS Notice 5922.**

THEATRE ARTS**THEATRE ARTS 1 (141000)****Grades: 9, 10, 11, 12****Credit: one**

Theatre Arts 1 provides students with a survey of the theatre arts, allowing students the opportunities to experience and appreciate dramatic literature, and participate in the creative processes of performance and production. The course emphasizes skill development and provides theatrical opportunities that enable students to determine personal areas of interest. Participation in co-curricular theatre productions may be arranged. This course may be used to satisfy the graduation requirement for a credit in fine and practical arts. **This course requires a student materials fee as listed in FCPS Notice 5922.**

THEATRE ARTS 2 (142000)**Grades: 10, 11, 12****Credit: one****Prerequisite: Theatre Arts 1 and/or recommendation of the theatre arts instructor.**

Theatre Arts 2 integrates and builds upon concepts and skills from Theatre Arts 1. Through various modes of expression and performance, students investigate dramatic literature, theatrical styles, and historical periods. Students will study and respond to a variety of theatre experiences that will refine their communicative, collaborative, analytical, interpretive, and problem solving skills. Students will expand their artistic abilities and appreciation of the theatrical arts. Students must meet both the school day and after-school participation requirements to receive credit for the course. This course may be used to satisfy the graduation requirement for a credit in fine and practical arts. **This course requires a student materials fee as listed in FCPS Notice 5922.**

THEATRE ARTS 3 (143000)**Develop Independent Skills in Theatre****Grades: 11, 12****Credit: one****Prerequisite: Theatre Arts 2 and/or recommendation of the theatre arts instructor.**

Students exhibit independence, discipline, and commitment to the theatre process through their work on assigned projects. Advanced work in acting skills and preparation, play analysis, and character interpretation are expected. Collaboration with actors and directors is augmented by special assignments and opportunities. Students must meet both the school day and after-school participation requirements to receive credit for the course. This course may be used to satisfy the graduation requirement for a credit in fine and practical arts. **This course requires a student materials fee as listed in FCPS Notice 5922.**

IB THEATRE ARTS 1 SL (143008)**Standard Level year 1****Grades: 11****Credit: one/weighted +1.0****Prerequisite: Theatre Arts 1 and 2 strongly recommended or by permission of theatre arts instructor**

Students engage in an in-depth study of the nature, theories, and processes of theatre and theatrical production through both practical and theoretical applications of the art form. Concurrently, students involve their senses, bodies and emotions to understand the forms theatre takes in cultures other than their own. Students will develop a portfolio including a journal and visual materials that catalog the development of the student's performance skills and production contributions. Summer assignment may be required. Students are required to take the standard level exam at the end of year 2. **This course requires a student materials fee as listed in FCPS Notice 5922.**

IB THEATRE ARTS 2 SL (144008)**Standard level year 2****Grades: 11, 12****Credit: one/weighted +1.0****Prerequisite: IB Theatre Arts Standard Level year one**

Students expand upon an in-depth study of the nature, theories and processes of theatre and theatrical production through both practical and theoretical applications of the art form. Concurrently, students involve their senses, bodies and emotions to understand the forms theatre takes in cultures other than their own. Students complete a critical evaluation of an external production that becomes part of their 3000 word portfolio. Students develop a high degree of aptitude in acting, directing, playwriting, or design. Summer assignment may be required. Students are required to take the standard level exam at the end of this course. **This course requires a student materials fee as listed in FCPS Notice 5922.**

IB THEATRE ARTS 1 HL (143009)**Higher Level year 1****Grades: 11****Credit: one/weighted +1.0****Prerequisite: Theatre Arts 1 and 2 strongly recommended or by permission of instructor**

Students engage in an in-depth study of the nature, theories, and processes of theatre and theatrical production through both practical and theoretical applications of the art form. Concurrently, students involve their senses, bodies and emotions to understand the forms theatre takes in cultures other than their own. Students will develop a portfolio including a journal and visual materials that catalog the development of the student's performance skills and production contributions. Students develop a high degree of aptitude in acting, directing, playwriting, or design. Summer assignment may be required. Students are required to take the higher level exam at the end of year 2. **This course requires a student materials fee as listed in FCPS Notice 5922.**

IB THEATRE ARTS 2 HL (144009)**Higher Level year 2****Grades: 12****Credit: one/weighted +1.0****Prerequisite: IB Theatre Arts Higher Level year one**

Students expand upon an in-depth study of the nature, theories and processes of theatre and theatrical production through both practical and theoretical applications of the art form. Concurrently, students involve their senses, bodies and emotions to understand the forms theatre takes in cultures other than their own. Students complete a critical evaluation of an external production plus an Individual Study consisting of a self-designed project that becomes part of their 4500 word portfolio. Students develop a high degree of aptitude in acting, directing, playwriting, or design. Summer assignment may be required. Students are required to take the higher level exam at the end of this course. **This course requires a student materials fee as listed in FCPS Notice 5922.**

TECHNICAL THEATRE 1 (143511)**Grades: 9, 10, 11, 12****Credit: one****Prerequisite: Theatre Arts 1 and/or recommendation of theatre arts instructor.**

Students explore various areas of technical theatre such as lighting, costumes, sound, scenery, makeup, properties, and theatre management. An analysis of dramatic literature leads students to an understanding of the design and production process. Participation in co-curricular productions is strongly encouraged. This course may be used to satisfy the graduation requirement for a credit in fine and practical arts. **This course requires a student materials fee as listed in FCPS Notice 5922.**

TECHNICAL THEATRE 2 (143512)**Grades: 10, 11, 12****Credit: one****Prerequisite: Technical Theatre 1 and/or recommendation of theatre arts instructor**

Students apply technical theatre knowledge and skills by participating in a variety of theatre lab activities and practical projects. Emphasis is on script interpretation and execution of the design concept. Students will collaborate to effectively and safely create functional scenery, properties, lighting, sound, costumes and makeup, and to develop stage management, business and public relations skills. Students must meet both the school day and after-school participation requirements to receive credit for the course. This course may be used to satisfy the graduation requirement for a credit in fine and practical arts. **This course requires a student materials fee as listed in FCPS Notice 5922.**

TECHNICAL THEATRE 3 (143513)**TECHNICAL THEATRE 4 (143514)***Available***VISUAL ARTS****STUDIO ART & DESIGN 1 (912000)****Grades: 9, 10, 11, 12****Credit: one**

Be introduced to a variety of exciting opportunities in using artistic processes, learn to think conceptually and realize potential as a creative and critical thinker in order to meet the challenges of 21st century living. Explore personal interests while developing skills in the areas of drawing, painting, printmaking, ceramics, sculpture, and digital media. Course content includes art production, art appreciation, and studies in visual culture. **Fee: \$45.00**

STUDIO ART & DESIGN 2 (913000)**Grades: 10, 11, 12****Credit: one****Prerequisite: STUDIO ART AND DESIGN 1**

Cultivate previously developed artistic knowledge and skills learned in Studio Art and Design 1. Explore new combinations and possibilities in the use of two-dimensional and three-dimensional media including technological applications. Investigate contemporary topics as they relate to artistic expression and design. Ask questions, solve problems, create products, and communicate ideas in innovative ways. Course content includes art production, design thinking, art history and criticism, aesthetics, and studies in visual culture. **Fee: \$50.00**

STUDIO ART & DESIGN 3 (914000)**Grades: 11, 12****Credit: one****Prerequisite: STUDIO ART AND DESIGN 2**

Expand and improve artistic understandings and skills by using creative processes. Develop an individual style and voice to communicate ideas. Articulate responses to personal and global issues through the integration of traditional and electronic media. Present artworks in diverse formats. Course content includes art production, design application, art history, criticism, aesthetics, and studies in visual culture. **Fee: \$50.00**

COMPUTER GRAPHICS 1 (918011)**Grades: 9, 10, 11, 12****Credit: one**

Think creatively and solve visual problems to create personally expressive artworks using technology. Develop expertise in the use of computers, scanners, and digital cameras for artmaking. Use Adobe Photoshop, Adobe Illustrator, Bryce 3-D, and Adobe Flash in the areas of motion graphics/animation, graphic design, and digital imaging. Learn to address ethical issues concerning computer generated imagery. No prior computer experience is required. **Fee: \$45.00**

COMPUTER GRAPHICS 2 (918111)**Grades: 10, 11, 12****Credit: one****Prerequisite: COMPUTER GRAPHICS 1**

Expand knowledge in the application of computer hardware and software to create personally expressive art. Solve complex visual problems within the areas of multimedia presentations, motion graphics/animation, graphic design, and digital imaging using Adobe Photoshop, Adobe Illustrator and Adobe Flash. Prepare a final required portfolio for evaluation. **Fee: \$45.00**

COMPUTER GRAPHICS 3 (918211)**Grades: 11, 12****Credit: one****Prerequisite: COMPUTER GRAPHICS 2**

Expand knowledge and ability in the application of hardware and software to create personally expressive original art. Create visual solutions using a variety of media, including motion graphics/animation, graphic design, game development, web design and print design. A final portfolio or demo reel is required for evaluation. **Fee: \$45.00**

PHOTOGRAPHY 1 (919311)**Grades: 9, 10, 11, 12****Credit: one**

Explore and practice standard black and white photographic processes through the use of cameras, films, light effects, and application of basic darkroom techniques. Be introduced to digital photographic processes. Produce meaningful photographs that express ideas about experiences and observations of the world. Study the history of photography and the work of well known photographers to inform artmaking. Develop a beginning portfolio. **Fee: \$75.00**

PHOTOGRAPHY 2 (919411)**Grades: 10, 11, 12****Credit: one****Prerequisite: PHOTOGRAPHY 1**

Expand on the study of black and white photography and digital processes. Acquire and apply in-depth knowledge of photographic equipment, films, and specialized processes to include digital applications. Investigate leading exponents, equipment, and techniques from an historical perspective. Learn to critique, and evaluate personal artwork and photographic works of others. Examine photography and its relationship to other art forms. Prepare a portfolio of meaningful artworks that demonstrate expressive content and quality of craftsmanship. **Fee: \$75.00**

PHOTOGRAPHY 3 (919511)**Grades: 11, 12****Credit: one****Prerequisite: PHOTOGRAPHY 2**

Develop a thematic path that integrates an in-depth exploration of film and digital processes. Explore various career paths in photography such as Photo Journalism, Commercial and Fine Art Photography. Apply professional exhibition techniques to present own work. Develop a quality portfolio that effectively illustrates a personal voice. **Fee: \$75.00**

IB VISUAL ARTS I (914908)**Grades: 11****Credit: one/weighted +1.0****Prerequisite: Studio Art and Design 1 and 2 or permission of instructor**

Students engage in advanced study of art processes, aesthetic issues, art criticism, and art history and culture while maintaining the self-discipline of the working artist. They exhibit technical proficiency and personal style while working in advanced media, and arrange an art show of their own work using professional exhibiting techniques. A culminating portfolio evidencing quality, a thematic series, breadth of work, progress over time, and highest level of achievement will be required. An investigation workbook which evidences critical research in an area agreed upon by the teacher and the student is required. Students are required to take the standard level exam at the end of year 2. Standard level students must complete the IB Visual Arts I requirements within a two-year period. **Fee: \$65.00**

IB VISUAL ARTS SL II (915108)**Grades: 12****Credit: one/weighted +1.0****Prerequisite: IB VISUAL ARTS I Standard Level Year 1**

Students engage in advanced study of art processes, aesthetic issues, art criticism, and art history and culture while maintaining the self-discipline of

the working artist. They exhibit technical proficiency and personal style while working in advanced media, and arrange an art show of their own work using professional exhibiting techniques. A culminating portfolio evidencing quality, a thematic series, breadth of work, progress over time, and highest level of achievement will be required. An investigation workbook which evidences critical research in an area agreed upon by the teacher and the student is required. Students are required to take the standard level exam at the end of year 2. Standard level students must complete the IB Visual Arts I requirements within a two-year period.

Fee: \$65.00

IB VISUAL ARTS HL II (915109)

Grades: 12 **Credit: one/weighted +1.0**

Prerequisite: IB VISUAL ARTS HL 1 year 1

Students engage in advanced study of art processes, aesthetic issues, art criticism, and art history and culture while maintaining the self-discipline of the working artist. They exhibit technical proficiency and personal style while working in advanced media, and arrange an art show of their own work using professional exhibiting techniques. A culminating portfolio evidencing quality, a thematic series, breadth of work, progress over time, and highest level of achievement will be required. An investigation workbook which evidences critical research in an area agreed upon by the teacher and the student is required. Designed for the highly motivated visual arts student with imaginative and creative abilities, who may wish to pursue the visual arts at the university or college level. Students are required to take the higher level exam at the end of year 2. Higher level students must complete the IB Visual Arts II requirements within a two-year period.

Fee: \$65.00

HEALTH and PHYSICAL EDUCATION

HEALTH AND PHYSICAL EDUCATION 9 (730000)

Grades: 9 **Credit: one**

Students gain knowledge and skills in a variety of individual, dual, and team sports to develop competencies to promote an active lifestyle. Personal fitness planning concepts are taught. One quarter of the course includes instruction in the health education topics of drug use prevention; alcohol, tobacco, and other drugs; emotional and social health; personal health; injury and violence prevention; disease prevention; and cardiopulmonary resuscitation and automated external defibrillation (CPR and AED).

HEALTH AND PHYSICAL EDUCATION 10 (740500)

Grades: 10 **Credit: one**

Prerequisite: Successful completion of Health and Physical Education, grade 9

Students demonstrate competency in a lifetime sport or activity and demonstrate personal fitness planning. One quarter of the course includes instruction in the health education topics; personal and community health, nutrition, human growth and development, and injury and violence prevention. One quarter of the course includes the classroom component of driver education. A mandatory 90-minute Parent/Teen Traffic Safety Presentation is offered to fulfill the requirements of juvenile licensing. Grades from all quarters are averaged to determine the final HPE grade.

PERSONAL FITNESS - LEVEL 1 (764011)

Grades: 10, 11, 12 **Credit: one**

Prerequisite: Successful completion of Health and Physical Education, grade 9

Students study and apply concepts related to human anatomy and physiology, kinesiology, nutrition, and personal fitness planning. Students will develop and participate in a personal fitness program to improve cardiorespiratory endurance, flexibility, muscular strength and endurance, and body composition. Students may not take this course in lieu of the grade 9 or grade 10 Health and Physical Education requirements.

PERSONAL FITNESS - LEVEL 2 (764012)

Grades: 11, 12 **Credit: one**

Prerequisite: Successful completion of Personal Fitness - Level 1

Students extend and enrich their knowledge and the application of human anatomy and physiology, kinesiology, nutrition, and personal fitness planning. Students will develop and participate in a personal fitness program to improve cardiorespiratory endurance, flexibility, muscular strength and endurance, and body composition. Students will utilize concepts to assess, plan, monitor, and modify their individual personal fitness plan. Students may not take this course in lieu of the grade 9 or grade 10 Health and Physical Education requirements.

SPORTS MEDICINE (763000)

Grades: 9, 10, 11, 12

Credit: one

Prerequisite: Successful completion or concurrent enrollment in biology.

Topics include medical professions, anatomy and physiology of skeletal and muscular systems, kinesiology, types of injuries, injury prevention and nutrition. Students may not take this course in lieu of the grade 9 or grade 10 Health or Physical Education requirements.

MARKETING

INTRODUCTION TO MARKETING (811000)

Grades: 9, 10 **Credit: one**

This introductory course in marketing enables students to gain a basic understanding of marketing principles, techniques, and career opportunities. Students will develop fundamental social, economic, mathematical, marketing, job search and decision-making skills necessary for successful initial employment in retail, wholesale, or service businesses. While enrolled in the course, the student is an active member of DECA. DECA prepares emerging leaders and entrepreneurs in marketing, finance, hospitality and management in high schools and colleges around the globe. Field trips, guest speakers, and competitive events through DECA membership enhance the course work. **Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit.**

MARKETING 1 (812000)

Grades: 10, 11, 12 **Credit: one**

Students are introduced to the foundations and functions involved in the successful marketing of goods, services and ideas to consumers. Students will study marketing and business foundations, career development, economics, selling, shortage prevention, human relations, communications, distribution, promotion, product planning, credit pricing, and marketing mathematics. Students may supplement the classroom instruction through participation in an internship experience, or they may enroll in the course without the additional commitment required through on-the-job training. While enrolled in this course, the student is an active member of DECA. DECA prepares emerging leaders and entrepreneurs in marketing, finance, hospitality and management in high schools and colleges around the globe. The cooperative education (Marketing Cooperative Internship) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. **Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit.**

SPORTS AND ENTERTAINMENT MARKETING (817500)

Grades: 10, 11, 12 **Credit: one**

Sports and Entertainment Marketing is a unique and innovative course designed for students with an interest in the sports and entertainment industry. Instructional areas include: an orientation to the sports and entertainment industry, market analysis, decision making, event marketing, event execution, and the production of a culminating event and analysis of the event. Classroom instruction will be reinforced through the use of outside lectures, case studies, and field trip experiences. While enrolled in the course, the student is an active member of DECA. DECA prepares emerging leaders and entrepreneurs in marketing, finance, hospitality and management in high schools and colleges around the globe. The cooperative education (Marketing Cooperative Internship) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. **Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential**

elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit.

ADVANCED MARKETING (813000)

Grades: 11, 12

Credit: one

Prerequisite: Marketing 1 (812000), Fashion Marketing 1 (814000), Sports and Entertainment Marketing (817500), or approval of instructor

Students have the opportunity to expand their knowledge of marketing from a management perspective. This course focuses on areas to include: ethics, consumer and environmental protection, economics, career development, entrepreneurship, professional sales, marketing-information-management, product planning, pricing, promotion, purchasing, distribution, finance, and the development of a business plan. Classroom instruction will be reinforced through the use of case studies, guest lecturers, and field trips. While enrolled in the course, the student is an active member of DECA. DECA prepares emerging leaders and entrepreneurs in marketing, finance, hospitality and management in high schools and colleges around the globe. The cooperative education (Marketing Cooperative Internship) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. **Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit.**

ADVANCED SPORTS AND ENTERTAINMENT MARKETING (817700)

Grades: 11, 12

Credit: one

Prerequisite: Sports and Entertainment Marketing (817500)

Enrollment in this advanced-level course will allow students to expand their knowledge in the sports and entertainment field. Instructional topics include: contracts, the role of agents and personal managers, market research, planning and segmentation, group sales, business ethics, management, and entrepreneurship. Classroom instruction will be reinforced through the use of case studies, guest lecturers, and field trips. While enrolled in the course, the student is an active member of DECA. DECA prepares emerging leaders and entrepreneurs in marketing, finance, hospitality and management in high schools and colleges around the globe. The cooperative education (Marketing Cooperative Internship) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. **Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit.**

CLASSROOM-ON-THE-MALL: MARKETING MANAGEMENT (813223)

Grades: 11, 12

Credit: one

(Transportation may be provided)

This specialized program enables students to learn business organization as well as operation skills and techniques in a realistic business setting. Classes are held in the Fair Oaks and Tyson's Corner Center shopping malls. Traditional classroom instruction in marketing, merchandising, fashion and management is enhanced by the opportunity for students to meet and work with professionals in the mall businesses. Students will develop critical-thinking and decision-making skills through the application of marketing principles to small and large businesses, nonprofit organizations, service industries, and other institutions or associations that make products or provide services. Students attend their base schools for regular classes and then travel to Fair Oaks or Tyson's Corner Center shopping malls for both classroom instruction and related on-the-job training. The Holiday Gift Wrap Center at Fair Oaks Mall offers additional opportunities for real-life entrepreneurial experiences. Due to the unique structure of this program, excellent attendance is mandatory. While enrolled in the course, the student is an active member of DECA. DECA prepares emerging leaders and entrepreneurs in marketing, finance, hospitality and management in high schools and colleges around the globe. The cooperative education (Marketing Cooperative Internship) method is available for this course.

Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. **Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma.**

CLASSROOM-ON-THE-MALL: FASHION MARKETING 2 (814523)

Grades: 11, 12

Credit: one

Prerequisite: Marketing 1 (812000) or Fashion Marketing 1 (814000) (Transportation may be provided)

This specialized program enables students to learn business organization as well as operation skills and techniques in a realistic business setting. Classes are held in the Fair Oaks and Tyson's Corner Center shopping malls. Traditional classroom instruction in marketing, merchandising, and management is enhanced by the opportunity for students to meet and work with professionals in the mall businesses. This course provides an in-depth study of merchandising techniques, fashion trends, fashion promotion, and management skills. Students attend their base schools for regular classes and then travel to Fair Oaks or Tyson's Corner Center shopping malls for both classroom instruction and related on-the-job training. The Holiday Gift Wrap Center at Fair Oaks Mall offers additional opportunities for real-life entrepreneurial experiences. Due to the unique structure of this program, excellent attendance is mandatory. While enrolled in the course, the student is an active member of DECA. DECA prepares emerging leaders and entrepreneurs in marketing, finance, hospitality and management in high schools and colleges around the globe. The cooperative education (Marketing Cooperative Internship) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. **Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit.**

ENTREPRENEURSHIP 1 – Dual Enrollment NOVA (909326)

Grades: 11, 12

Credit: one

Marshall Academy

Entrepreneurship 1 provides students opportunities for learning small business ownership skills. Students will experience the process of developing, financing, and marketing a new product or service through an interactive curriculum. While enrolled in the course, the student is an active member of DECA. DECA prepares emerging leaders and entrepreneurs in marketing, finance, hospitality and management in high schools and colleges around the globe. Field trips, guest speakers, and DECA competitive events are used to enhance the course work. The cooperative education (Marketing Cooperative Internship) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. Students have a dual enrollment option with Northern Virginia Community College. **Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit.**

ENTREPRENEURSHIP 2 (909416)

Grades: 12

Credit: one

Prerequisite: Entrepreneurship 1 (909326)

Marshall Academy

Entrepreneurship 2 is an advanced course enabling students to further investigate and prepare for owning and operating a small business. Students must have successfully completed Entrepreneurship 1 (Course Code 909326) in order to participate in this class. Students enrolled in this class are encouraged to pursue the business developed in Entrepreneurship 1. The curriculum provides an in-depth study of business ownership. Students will develop a deeper understanding of the role of marketing and finance in their business success in order to implement their Business Plan. Classroom instruction will be supplemented with industry guest speakers, field experiences, and the cocurricular student organization DECA. The cooperative education (Marketing Cooperative Internship) method is

available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. Students have a dual enrollment option with Northern Virginia Community College. **Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit.**

FASHION MARKETING 1 (814000)

Grades: 10, 11, 12

Credit: one

Fashion Marketing 1 is a specialized course designed for students interested in the business aspect of the fashion industry. Curriculum units include an overview of basic apparel and accessories terminology, foundations and functions of business and marketing, sales and buying motives, economics, textiles, color, line and design, historical costume, career development, promotion, visual merchandising, and fashion show production. Cross curricular skills in research, merchandising mathematics, textile chemistry, computer applications, and creative and technical writing are reinforced in this course. While enrolled in the course, the student is an active member of DECA. DECA prepares emerging leaders and entrepreneurs in marketing, finance, hospitality and management in high schools and colleges around the globe. Work-based learning strategies appropriate for this course may include job shadowing, paid/unpaid internships, field trips, and/or cooperative education. Marketing simulations, case studies, projects, teamwork, guest speakers, and DECA competitions provide many opportunities for application of instructional competencies. The cooperative education (Marketing Cooperative Internship) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. **Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit.**

INTRODUCTION TO HOTEL MARKETING (816026)

Grades: 9, 10, 11, 12

Credit: one

Marshall Academy

Introduction to Hotel Marketing actively investigates careers in the hospitality and tourism career cluster including hotel and restaurant management, event and wedding planning, tourism, resort and golf course management, and the cruise ship industry. Students become familiar with concepts in marketing, convention, banquet and meeting services, catering services and event planning, venue management, guest services and retention, food and beverage operation, travel and transportation, and social and internet marketing. The Hotel Marketing programs are administered through Edison and Marshall Academies. Students are active members of DECA. DECA prepares emerging leaders and entrepreneurs in marketing, finance, hospitality and management in high schools and colleges around the globe. Program activities include: field trips, guest speakers, DECA competitive events, and projects. The cooperative education (Marketing Cooperative Internship) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. The one-credit Hotel Marketing course is offered at Edison and Marshall Academies and selected high schools. For more information, visit the academy web site. **Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit.**

HOTEL MARKETING 1 (816027)

Grades: 9, 10, 11, 12

Credit: two

Marshall Academy

Hotel Marketing 1 actively investigates careers in the hospitality and tourism career cluster including hotel and restaurant management, event and wedding planning, tourism, resort and golf course management and the

cruise ship industry. Students become familiar with concepts in marketing, convention, banquet and meeting services, catering services and event planning, venue management, guest services and retention, food and beverage operation, travel and transportation, and social and internet marketing. In the two credit option, students will have the opportunity to attend classes at participating hotels. Students are required to wear uniforms and follow the hotel dress code. Students are active members of DECA. DECA prepares emerging leaders and entrepreneurs in marketing, finance, hospitality and management in high schools and colleges around the globe. Program activities include: field trips, guest speakers, DECA competitive events, and projects. The cooperative education (Marketing Cooperative Internship) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. For more information, visit the academy web site. **Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit. Students successfully completing this course may be eligible for articulated credit with approved colleges or universities.**

HOTEL MARKETING 2 (816227)

Grades: 12

Credit: two

Prerequisite: Hospitality Marketing 1 (816026 or 816027)

Marshall Academy

This advanced course enables students to continue to develop and grow their skills in the hospitality industry. Students will intern in a hotel, work with hotel staff and guests to develop resume-building skills in a variety of departments. Three career clusters will be explored: Business Management & Administration, Marketing, and Hospitality & Tourism. Concentration of course work and internships will be in marketing techniques, supervisory skills, management reporting, overall operations and cost controls, specific department operations, and professional development. While attending classes at participating hotels, students are required to wear uniforms and follow the hotel dress code. While enrolled in the course, the student is an active member of DECA. DECA prepares emerging leaders and entrepreneurs in marketing, finance, hospitality and management in high schools and colleges around the globe. Field trips, guest speakers, and DECA competitive events are used to enhance the course work. The cooperative education (Marketing Cooperative Internship) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. The program is offered at Marshall, Chantilly and Edison Academies. For more information, visit the academy web site. **Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit.**

MARKETING COOPERATIVE INTERNSHIP (CO-OP) (819920)

Grades: 10, 11, 12

Credit: one

Corequisite: Student must be concurrently enrolled in a Marketing or EFE course.

The Marketing Cooperative Internship (Co-op) option enhances classroom instruction by providing practical work experience that is relevant to students' career goals. Students enrolled in Co-op attend at least one marketing or EFE class and work a minimum of 396 hours (10 hours per week) in an approved, supervised marketing-related, part-time job for one credit.

MARKETING COOPERATIVE INTERNSHIP (CO-OP) (819921)

Grades: 10, 11, 12

Credit: two

Corequisite: Student must be concurrently enrolled in a Marketing or EFE course.

The Marketing Cooperative Internship (Co-op) option enhances classroom instruction by providing practical work experience that is relevant to students' career goals. Students enrolled in Co-op attend at least one marketing or EFE class and work a minimum of 720 hours (20 hours per week) in an approved, supervised marketing-related, part-time job for two credits.

MATHEMATICS

INDIVIDUALIZED MATH ESOL (312190)

Grades: 9, 10, 11 **Credit: one**

The purpose of this course is to provide instruction of elementary mathematics skills to ESOL or special education students who are functioning below the fifth grade level in mathematics. The course is designed to present the foundational skills necessary to enter Algebra 1 using manipulatives, special materials, and adaptive strategies. The course may include number concepts, mental mathematics, estimation, problem solving, operations, measurement, geometry, data analysis, statistics, probability, and fractions. Students may need up to two years to complete the course, but should move to the next course as soon as their mathematics skills warrant. ESOL and special education students must be enrolled in different sections. ESOL sections (312190) will emphasize language objectives in addition to mathematics objectives. For special education students, this course should be reflected in the student's IEP. This course does not meet the mathematics graduation requirements for the Standard or Advanced Studies Diploma. Students earn elective credit. This course may be added to a school program only with the approval of the Office of High School Instruction and K-12 Curriculum Services.

ALGEBRA 1 / PART 1 (313100)

Grades: 9, 10 **Credit: one**

Prerequisite: Middle School Mathematics

Algebra 1 / Part 1 extends students' understanding of the real number system and its properties through the study of variables, expressions, equations, inequalities, and analysis of data derived from real-world phenomena. Topics include linear equations and inequalities, linear relations and functions, measures of central tendency (mean, median, mode), data analysis and middle school objectives as needed. Algebra 1 / Part 1 includes approximately sixty percent of the Virginia Standards of Learning for Algebra 1. **This course will not count towards a mathematics graduation credit for students who start 9th grade during the 2010-2011 school year or later.**

ALGEBRA 1 (313000)

Grades: 8, 9, 10, 11 **Credit: one**

Prerequisite: Middle School Mathematics

This course extends students' knowledge and understanding of the real number system and its properties through the study of variables, expressions, equations, inequalities, and analysis of data derived from real-world phenomena. Emphasis is placed on making connections in algebra to geometry and statistics. Calculator and computer technologies will be used as tools wherever appropriate. Use of a graphing calculator is considered essential to provide a graphical and numerical approach to topics in addition to a symbolic approach. Topics include linear equations and inequalities, systems of linear equations, relations, functions and polynomials. **Students are required to take the Standards of Learning End of Course Test.**

GEOMETRY (314300)

Grades: 9, 10, 11, 12 **Credit: one**

Prerequisite: Algebra 1

This course emphasizes two- and three-dimensional reasoning skills, coordinate and transformational geometry, and the use of geometric models to solve problems. A variety of applications and some general problem-solving techniques, including algebraic skills, will be used to explore geometric relationships. Conjectures about properties and relationships are developed inductively and then verified deductively. Calculators, computers, graphing utilities, dynamic geometry software, and other appropriate technology tools will be used to assist in teaching and learning. **Students are required to take the Standards of Learning End of Course Test.**

GEOMETRY HONORS (314336)

Grades: 8, 9, 10 **Credit: one/weighted +.5**

Prerequisite: Algebra 1

The depth and level of understanding expected in Geometry Honors is beyond the scope of Geometry. This course emphasizes two- and three-dimensional reasoning skills, coordinate and transformational geometry, and the use of geometric models to solve problems. A variety of applications and some general problem-solving techniques, including algebraic skills, will be used to explore geometric relationships. Conjectures about properties and relationships are developed inductively and then verified deductively. Students investigate non-Euclidean geometries, formal logic, and use deductive proofs to verify theorems. Calculators, computers, graphing utilities, dynamic geometry software, and other appropriate

technology tools will be used to assist in teaching and learning. **Students are required to take the Standards of Learning End of Course Test.**

ALGEBRA 2 (313500)

Grades: 10, 11, 12 **Credit: one**

Prerequisite: Algebra 1 and Geometry

Algebra 2 provides a thorough treatment of algebraic concepts through the study of functions, polynomials, rational expressions, complex numbers, exponential and logarithmic equations, matrices, arithmetic and geometric sequences and series, and data analysis. Emphasis is placed on the mechanics of algebra with real world applications and modeling. A transformational approach to graphing is used with families of related graphs. Numerical, graphical, and algebraic solutions are considered for all problems as applicable. Graphing utilities, especially graphing calculators, are integral to the course. **Students are required to take the Standards of Learning End of Course Test.**

ALGEBRA 2 HONORS & TRIGONOMETRY (313536)

Grades: 9, 10, 11 **Credit: one/weighted +.5**

Prerequisite: Algebra 1 and Geometry

The depth and level of understanding expected in Algebra 2 Honors is beyond the scope of Algebra 2. Students are expected not only to master algebraic mechanics but also to understand the underlying theory and to apply the concepts to real-world situations in a meaningful way. A thorough treatment of advanced algebraic concepts is provided through the study of functions, polynomials, rational expressions, complex numbers, matrices, exponential and logarithmic equations, infinite geometric sequences and series, permutations and combinations, and selected topics in discrete mathematics. Emphasis is on modeling, logic, and interpretation of results. A transformational approach to graphing is used with families of related graphs. Numerical, graphical, and algebraic solutions are considered for all problems, as applicable. Graphing utilities, especially graphing calculators, are integral to the course. **Students are required to take the Standards of Learning End of Course Test.**

PRECALCULUS WITH TRIGONOMETRY (316000)

Grades: 10, 11, 12 **Credit: one**

Prerequisite: Geometry and Algebra 2

Precalculus with Trigonometry includes all the topics of Trigonometry (3150) and a thorough treatment of functions through the study of polynomials, rational functions, logarithmic, exponential, and inverse functions. Topics include continuity, maximum and minimum points, an intuitive approach to limits, and rates of change. A transformational approach to graphing is used with families of related graphs. Numerical, graphical, and algebraic solutions are considered for all problems as applicable. Emphasis will be placed on problem solving techniques. Graphing utilities, especially graphing calculators, are integral to the course.

TRIGONOMETRY (315033) *Fall Only*

Grades: 11, 12 **Credit: one-half**

Prerequisite: Geometry and Algebra 2

Trigonometry topics include circular functions, right triangle ratios, solving trigonometric equations, inverses, identities, the Laws of Sines and Cosines, graphing trigonometric functions, and applying trigonometric techniques to solving real-world problems. A transformational approach to graphing is used with families of related graphs. Numerical, graphical, and algebraic solutions are considered for all problems as applicable. Graphing utilities, especially graphing calculators, are integral to the course.

PROBABILITY AND STATISTICS (319032) *Spring Only*

Grades: 11, 12 **Credit: one-half**

Prerequisite: Geometry and Algebra 2

Course content includes theory of probability, description of statistical measurements, probability distributions, and statistical inference. Optional topics include statistical inference involving two populations, linear regression, and correlation.

IB MATHEMATICAL STUDIES SL (319608)

Grades: 11, 12 **Credit: one/weighted +1.0**

Prerequisite: Precalculus with Trigonometry or equivalent

The content of this course includes a study of functions, algebraic geometry, trigonometry, probability and statistics, sets and logic, financial mathematics, introductory differential calculus, and mathematical applications in the natural world. All students in this course must complete a project. Students are required to take the standard level exam.

IB MATHEMATICS SL I (316308)

Grades: 10, 11 **Credit: one/weighted +.5**

Prerequisite: Geometry and Algebra 2 (or Algebra 2/Trigonometry)

This course begins with the study of polynomial, rational, logarithmic, exponential, trigonometric, and inverse functions and their applications. Sequences and series are investigated to provide a foundation for limits and continuity. The course includes the study of vectors, matrices and differential calculus and expands on topics in trigonometry. Students will be required to begin a portfolio of problems for the Internal Assessment. IB Mathematics SL I together with IB Mathematics SL II prepares students to take the standard level exam.

IB MATHEMATICS SL II (319508)

Grades: 11, 12 **Credit: one/weighted +1.0**

Prerequisite: IB Mathematics SL I or Precalculus with Trigonometry Honors

This course concludes the study of the concepts introduced in IB Mathematics SL I. The course includes the study of differential and integral calculus of functions of a single variable with applications. The course reemphasizes and expands upon topics in vectors and matrices introduced in IB Mathematics SL I. The course also includes the study of the theory and application of probability, random variables, and both descriptive and inferential statistics. Students are required to complete a portfolio of problems for the Internal Assessment. Students are required to take the standard level exam.

IB MATHEMATICS HL I (317709)

Grades: 11, 12 **Credit: one/weighted +1.0**

Prerequisite: Algebra 2/Trigonometry or Precalculus with Trigonometry Honors or equivalent

This is the first year of a two-year intensive college-level study of mathematics. Course content includes the study of precalculus topics, algebraic and transcendental functions and their inverses, matrices, three dimensional vectors and differential calculus. Students will be required to begin a portfolio of problems for the Internal Assessment. IB Mathematics HL I together with IB Mathematics HL II prepares students for the higher level exam.

IB MATHEMATICS HL II (317009)

Grades: 11, 12 **Credit: one/weighted +1.0**

Prerequisite: IB Mathematics HL I

This is the second year of a two-year intensive college level study of mathematics. Course content includes integral calculus, the study of the theory and application of probability, random variables, both descriptive and inferential statistics, three-dimensional vectors, infinite series and differential equations. Students are required to complete a portfolio of problems for the Internal Assessment. IB Mathematics HL I together with IB Mathematics HL II prepares students for the higher level exam. Students are required to take the higher level exam.

SCIENCE

CONCEPTS SCIENCE (462260)

Grades: 9, 10, 11 **Credit: one**

This course, taught by science or ESOL teachers, is designed for ESOL Level 1 and 2 students. The course provides students with background information, key vocabulary, and basic concepts and skills in preparation for taking biology. This course can be offered on a semester basis for a half credit. Concepts Science is an elective and does not satisfy the state science graduation requirements. This course can be repeated for elective credit.

BIOLOGY 1 (431000)

Grades: 9, 10, 11, 12 **Credit: one**

In Biology 1, students engage in scientific inquiry through lab work as they explore biological processes. All class and laboratory activities focus on life processes that occur within organisms or cells as well as the characteristics of life including: reproduction, development, and adaptation to environment. Major topics of study include molecular biology, cells, genetics, organisms, evolution and ecology. The course includes a unit on human life education that addresses the topics of human reproduction and human development. Parents have the option of withdrawing their child from any or all topics included in the state-mandated Family Life Education portion. Students opting-out will be provided with alternative biology lessons. If dissections are a part of the laboratory experience, alternatives are available. **Students are required to take the Standards of Learning End of Course Test.**

BIOLOGY 1 HONORS (431036)

Grades: 9, 10, 11, 12 **Credit: one/weighted +.5**

In Biology 1 Honors, students engage in scientific inquiry as they explore biological processes. All class activities and laboratory activities focus on life processes that occur within organisms or cells as well as the

characteristics of life including: reproduction, development, and adaptation to environment. Major topics of study include molecular biology, cells, genetics, organisms, evolution and ecology. In comparison to Biology 1, students will investigate some topics at a deeper level including biotechnology, health and environmental issues. Students will be involved in an externally-moderated experimental/research projects, either independently or in teams. The course includes a unit on human life education that addresses the topics of human reproduction and human development. Parents have the option of withdrawing their child from any or all topics included in the state-mandated Family Life Education portion. Students opting-out will be provided with alternative biology lessons. If dissections are a part of the laboratory experience, alternatives are available. **Students are required to take the Standards of Learning End of Course Test.**

IB BIOLOGY I (438008)

Grades: 11 **Credit: one/weighted +1.0**

Prerequisite: Chemistry 1

IB Biology I is the first year of a two-year sequence wherein students study biology in depth. During this course, students will study such topics as cell structure; nucleic acids and proteins; cellular respiration and photosynthesis; genetics; human reproduction; defense against infectious disease; classification and diversity; nerves, muscles, and movement; and plant science. Participation in an interdisciplinary science research (Group 4) project is required. Laboratory investigations form a major component of the course, and all students must maintain a portfolio of laboratory work that is presented to the IB examiners. If dissections are part of the laboratory experience, alternatives are available. IB Biology I together with IB Biology II will prepare students for the higher level exam.

IB BIOLOGY HL II (439009)

Grades: 12 **Credit: one/weighted +1.0**

Prerequisite: IB Biology I

IB Biology II is the second year of a two-year sequence wherein students study biology in depth. Students continue the higher level topics on the cell; nucleic acids and proteins; cell respiration and photosynthesis; genetics; human reproduction; defense against infectious disease; classification and diversity; nerves, muscles, and movement; and plant science. In addition, students study higher level options that may include evolution; neurobiology and behavior; applied plant and animal science; ecology and conservation; microbes and biotechnology; or human physiology. Participation in an interdisciplinary science research (Group 4) project is required (either in IB Biology I or in this class). Laboratory investigations form a major component of the course, and all students must maintain a portfolio of laboratory work that is presented to the IB examiners. If dissections are part of the laboratory experience, alternatives are available. Students are required to take the IB Biology higher level exam.

CHEMISTRY 1 (441000)

Grades: 10, 11, 12 **Credit: one**

Prerequisite: One laboratory science course, Algebra 1

Chemistry I provides students the opportunity to develop their critical thinking skills as they acquire a better understanding of the chemical nature of our world. Students investigate the composition of matter, and the changes it undergoes. The approach is inductive, mathematical, and conceptual. Laboratory experiments and subsequent classroom analysis are integral components of the course. **Students are required to take the Standards of Learning End of Course Test.**

IB CHEMISTRY I (441007)

Grades: 10, 11, 12 **Credit: one/weighted +.5**

Prerequisite: Biology 1, Algebra 1

Corequisite: Algebra 2

This course provides a general introduction to chemistry. The topics of study include atomic structure, ionic and covalent compounds, chemical equations, stoichiometry, gases, solutions, and acids and bases. The history and nature of science are included throughout the course. Students learn to design experiments, to collect data, and to analyze data using graphical and statistical methods. They design and conduct experimental research projects. Participation in an interdisciplinary science research (Group 4) project is required. Laboratory investigations form a major component of the course, and all students must maintain a portfolio of laboratory work that is presented to the IB examiners. IB Chemistry I meets the course requirements of Chemistry I Honors. **Students are required to take the Standards of Learning End of Course Test.**

IB CHEMISTRY II SL (449008)

Grades: 11, 12 **Credit: one/weighted +1.0**

Prerequisite: IB Chemistry I

This second level course provides students with hands-on laboratory experiences and a comprehensive study of introductory chemistry. Students study atomic theory, structure and bonding, energetics, equilibrium kinetics, periodicity, and carbon chemistry. A more thorough study is made of topics in organic chemistry than is traditionally done in high school chemistry. Participation in an interdisciplinary science research (Group 4) project is required. Laboratory investigations form a major component of the course, and all students must maintain a portfolio of laboratory work that is presented to the IB examiners. Students are required to take the IB Chemistry standard level exam.

IB CHEMISTRY II HL (449009)

Grades: 12 **Credit: one/weighted +1.0**

Prerequisite: IB Chemistry I

This college level course provides students with hands-on laboratory experiences and a comprehensive study of introductory chemistry. Students study atomic theory, structure and bonding, energetics, equilibrium kinetics, periodicity, and carbon chemistry. A more thorough study is made of topics in organic chemistry than is traditionally done in high school chemistry. Students are required to complete an interdisciplinary science research (Group 4) project. Students are required to take the IB Chemistry higher level exam.

ACTIVE PHYSICS (451050)

Grades: 10, 11, 12 **Credit: one**

Prerequisite: One laboratory science course

Active Physics is for students who have not yet passed Algebra I. This course has a strong emphasis on experimentation and investigation. The units of study focus on predictions and real-world applications of physics principles related to sports, medicine, transportation, home, and communication. The physics content is presented in a problem-solving manner to strengthen both science and mathematics content knowledge and skills.

PHYSICS 1 (451000)

Grades: 11, 12 **Credit: one**

Prerequisite: Two laboratory science courses

Physics 1 introduces the central concepts of physics, including kinematics, dynamics, the conservation laws (mass, energy, and momentum), electricity, magnetism, and waves. This laboratory-centered course utilizes an approach that is inductive and mathematical as well as conceptual.

ENGINEERING PHYSICS 1 (451026)

Grades: 10, 11, 12 **Credit: one**

Prerequisite: One year of laboratory science and Algebra 1 (313000) Marshall Academy

This course may be used to satisfy one credit toward the science, elective, fine arts or career and technical education requirement of the standard or advanced studies diploma. This course is the first year of the two-year college preparatory, laboratory-based Engineering Physics sequence; it is designed for students anticipating careers in the physical sciences, engineering, and technology. The course begins with a review of mathematical and basic scientific procedures. Course curriculum topics include universal concepts, inquiry processes, forcing functions, movement functions, time dependence functions, resistance functions, energy functions, transforming functions, unifying forces, unifying laws, and space-time extremes. These topics are addressed in the context of mechanical, fluid, electrical, thermal, and aerospace systems. Students complete approximately 40 hours of active inquiry and participation in modern technology competitions and are introduced to the cycle of rapid prototyping design, build, test, and modify. These form the core of modern product development. The course may include curriculum-related field trips, and college-oriented information seminars. For more information, visit the academy web site. **Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma. This course requires a student materials fee as listed in FCPS Notice 5922.**

ENGINEERING PHYSICS 2 (452026)

Grades: 11, 12 **Credit: one**

Prerequisite: Engineering Physics 1(451026) or Physics 1 (451000).

Corequisite: Algebra Option: Co-enrollment in or completion of Algebra 2 (313500); Calculus Option: Co-enrollment in a calculus-based mathematics course (316308, 316508, or equivalent)

Marshall Academy

This course may be used to satisfy one credit toward the science, elective, fine arts or career and technical education requirement of the standard or

advanced studies diploma. The course is the second year of the two-year college preparatory, laboratory-based Engineering Physics sequence; and is designed for students anticipating careers in the physical sciences, engineering, technology, medicine, or other research, and experimentation disciplines. The course begins with a review of mathematical and basic physics and engineering concepts to assure that all students are brought to a consistent level of preparedness. Curriculum topics include universal concepts, inquiry processes, fundamental constants, special relativity, rotational dynamics, waves and vibrations, energy conversion, transducers, electromagnetic radiation, optical measurements, and exponential behavior. These topics are addressed in the context of mechanical, fluid, electrical, thermal, and aerospace systems. Students complete approximately 50 hours of laboratory experimentation and participation in advanced technology competitions. The course may include curriculum-related field trips and college-oriented information seminars. Individual academies apply the curriculum in the manner that best fits local facilities and opportunities. Participating students may compete for a limited number of industry internships. For more information, visit the academy web site.

Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. This course requires a student materials fee as listed in FCPS Notice 5922. Students successfully completing this course may be eligible for articulated credit with approved colleges or universities.

IB PHYSICS I (451007)

Grades: 10, 11 **Credit: one/weighted +.5**

Prerequisite: Two laboratory science courses

Corequisite: Algebra 2 or Precalculus with Trigonometry or IB Mathematics I

IB Physics I topics include mechanics, electricity, magnetism, waves, thermodynamics, atomic physics, climate change, and alternative energy sources. Laboratory investigations form a major component of the course, and all students must maintain a portfolio of laboratory work that is presented to the IB examiners. At the end of the first year, students may choose to continue with either standard or higher level IB physics studies, according to the student's and the local school's offerings. This course is the first in a two-year sequence designed to prepare students for either the IB standard level or higher level examination in physics. Students will be involved in an externally-moderated experimental/research project. IB Physics I meets the course requirements of Physics I Honors.

IB PHYSICS II SL (459008)

Grades: 11, 12 **Credit: one/weighted +1.0**

Prerequisite: IB Physics I

Corequisite: IB Mathematics SL or IB Mathematics HL

The topics--mechanics, electricity and magnetism, waves, thermodynamics, climate, and atomic physics--addressed in IB Physics I are revisited in more depth and breadth. Additionally, students will study two topics among sight & wave phenomena, quantum & nuclear physics, digital technology, relativity & particle physics, astrophysics, communications, and electromagnetic waves. Students are required to complete an interdisciplinary science research (Group 4) project. Students are required to take the IB Physics standard level exam.

IB PHYSICS II HL (459009)

Grades: 12 **Credit: one/weighted +1.0**

Prerequisite: IB Physics I

Corequisite: IB Mathematics SL or IB Mathematics HL

The topics--mechanics, electricity and magnetism, waves, thermodynamics, climate, and atomic physics--addressed in IB Physics I are revisited in more depth and breadth. Additionally, students will study quantum physics, nuclear physics, digital technology and two topics among astrophysics, communications, electromagnetic waves, relativity, medical physics, and particle physics. Students are required to complete an interdisciplinary science research (Group 4) project and are required to take the IB Physics higher level exam.

GEOSYSTEMS (422000)

Grades: 11, 12 **Credit: one**

Prerequisite: Biology 1 and Chemistry 1

Geosystems utilizes content from geology, astronomy, oceanography, and meteorology to investigate, both qualitatively and quantitatively, the major earth systems (atmosphere, hydrosphere, lithosphere, biosphere) and their dynamic inter-relationships. Students explore concepts with the same tools professional scientists use including computers, Geographic Information Systems (GIS), Global Positioning System (GPS), image processing software, and probeware. **Students are required to take the Standards of Learning End of Course Test.**

IB ENVIRONMENTAL SYSTEMS AND SOCIETIES SL (428008)**Grades: 11, 12** **Credit: one/weighted +1.0****Prerequisite: Biology 1 and Chemistry 1**

The course focuses on the fundamental structure and functioning of natural systems and the broad impacts of human activities. Students examine systems and models, the ecosystem, global cycles and physical systems, and human population and carrying capacity. They analyze a specific ecosystem as well as the impacts of resource exploitation, conservation and biodiversity, and pollution. Laboratory investigations, including field studies, form a major component of the course, and all students must maintain a portfolio of laboratory work that is presented to the IB examiners. Students are required to take the IB Environmental Systems and Societies standard level exam.

SOCIAL STUDIES**WORLD CONCEPTS (299660)****Grades: 9, 10, 11** **Credit: one**

This course provides students with background information, key vocabulary, and basic concepts in preparation for taking World History and Geography 1. Course content includes map skills and geographic themes. This course is designed for ESOL Level 1 and 2 students. World Concepts is an elective and does not satisfy the state Social Studies requirements for graduation. This course may be repeated for elective credit.

WORLD HISTORY AND GEOGRAPHY 1 (221900)**Grades: 9** **Credit: one**

This is the first of a two-year, chronologically organized study of world history and geography. In this first year, students study the world from ancient times to 1500. The course highlights the relationship between the geography and history of Europe, Africa, Asia, and Latin America. Students refine and expand critical thinking skills, practice decision making and problem solving, and formulate questions to guide research. World History and Geography 1 is required for graduation. **Students are required to take the Standards of Learning End of Course Test.**

WORLD HISTORY AND GEOGRAPHY 2 HONORS (222136)**Grades: 9** **Credit: one/weighted +.5**

This course is a chronologically organized study of world history and geography with an emphasis on the modern era devoted to the geography and history of Europe, Africa, Asia and the Americas from 1500 to the present. Students examine the relationship among social, economic and geopolitical developments across time and place. They use the processes of conceptual and critical thinking to analyze historical and contemporary issues. Students engage in intensive analytical reading, writing and discussion. This is the first of a four-year history and social sequence for IB history. Honors World History and Geography 2 meets the course requirements of World History and Geography 2. **Students are required to take the Standards of Learning End of Course Test.**

WORLD HISTORY AND GEOGRAPHY 2 (222100)**Grades: 10** **Credit: one**

This is the second of a two-year, chronologically organized study of world history and geography. In this second year, students study the world from 1500 through the contemporary era. The course weaves together the skills and content of both history and geography so that students may learn how history and geography affect each other and therefore gain a more complete understanding of the world around them, including North and South America, Europe, Asia, and Africa. Students continue to refine and expand critical thinking skills, practice decision making and problem solving, and formulate questions to guide research. World History and Geography 2 is required for graduation. **Students are required to take the Standards of Learning End of Course Test.**

GOVERNMENT HONORS (244036)**Grades: 10** **Credit: one/weighted +.5**

In this course, students study political philosophy and the structures and functions of local, state, and national governments. This course is intended for students in IB schools who wish to pursue an IB diploma. In addition, students will investigate the governments of the countries that they will study in their later IB history courses. Important elements of the class include congressional and judicial simulations as well as small and large group discussion and research on current political and economic issues. One additional feature of this course is that the students will have direct instruction in time management and study skills to help prepare them for the rigors of the IB program including IB History I and IB History II.

VIRGINIA AND UNITED STATES HISTORY (236000)**Grades: 11** **Credit: one**

Students examine the political, economic, social, and cultural growth of the United States, including the role of Virginia in this growth. Students study major historical developments and their impact on contemporary society and on the individual. Map and globe reading, critical thinking, writing, research, and group-process skills are refined. Virginia and United States History is required for graduation. **Students are required to take the Standards of Learning End of Course Test.**

IB HISTORY I: HISTORY OF THE AMERICAS (236009)**Grades: 11** **Credit: one/weighted +1.0**

Students study political, social, economic and cultural history of the nations of the Western Hemisphere with an emphasis placed on the history of the United States and are introduced to history as a discipline, the nature and variety of historical sources, and the historian's methods. The historical narrative begins with the fifteenth century encounter by Europeans with American cultures and concludes with the entrance of the United States upon the world stage in the early years of the twentieth century. Topics for study include encounter and exchange, colonial institutions, collapse of imperial regimes, evolution of nineteenth century institutions, and the Americas in the industrial age. Students are expected to perceive past events and issues as they were experienced by people at the time, to acquire a comprehension both of diverse cultures and of shared humanity, and to understand the significance of the past to their own lives. IB History I together with IB History II prepares students to take the higher level exam. **Students are required to take the Standards of Learning End of Course Test.**

VIRGINIA AND UNITED STATES GOVERNMENT (244000)**Grades: 12** **Credit: one**

Students examine both the structure and function of American government at the national, state, and local levels. The course focuses on political decision-making, comparative political and economic systems, and the student's role as a citizen. Critical thinking, writing, research, and group-process skills are refined. Virginia and United States Government is required for graduation.

IB HISTORY II: TOPICS IN 20TH CENTURY WORLD HISTORY SL (236108)**Grades: 12** **Credit: one/weighted +1.0**

This course offers students an opportunity to study selected twentieth century topics in World History in an international dimension. Case studies of the major events and issues of the twentieth century are studied. Students read widely, acquiring the skills to evaluate, to interpret, and to use source material critically as historical evidence. These skills are specifically examined in the IB final. Additionally, students are expected to demonstrate an awareness of historical perspective and a consistently high level of critical analysis and handling of evidence in expository writing. A significant part of the final grade is an independent research project. IB History II SL prepares students to take the Standard level exam.

IB HISTORY II: TOPICS IN 20TH CENTURY WORLD HISTORY HL (236109)**Grades: 12** **Credit: one/weighted +1.0****Prerequisite: IB History I: History of the Americas**

This course offers students an opportunity to study selected twentieth century topics in World History in an international dimension. Case studies of the major events and issues of the twentieth century are studied. Students read widely, acquiring the skills to evaluate, to interpret, and to use source material critically as historical evidence. These skills are specifically examined in the IB final. Additionally, students are expected to demonstrate an awareness of historical perspective and a consistently high level of critical analysis and handling of evidence in expository writing. A significant part of the final grade is an independent research project. Students are required to take either the standard level or the higher level exam. IB History II, together with IB History I, prepares students to take the higher level exam.

IB SOCIAL ANTHROPOLOGY SL (237408)**Grades: 11, 12** **Credit: one/weighted +1.0**

In this course, students engage in the comparative study of culture and human societies. They explore both the universal principles of social and cultural life and characteristics of specific societies and cultures. This includes approaches to social change, problems of injustice, social inequality and human rights. Course activities include observation, field study, reading, writing, and discussion. Students are required to take the standard level exam.

IB ECONOMICS SL (280008)**Grades: 11, 12** **Credit: one/weighted +1.0**

This course provides students with an introduction to economics. Topics studied include basic terms and concepts, microeconomics, macroeconomics, international economics and development economics. Students examine economic phenomena through the use of diagrams, data analysis and the evaluation of economic material. Students are required to take the standard level exam.

SOCIOLOGY (250033) Fall Only**Grades: 10, 11, 12** **Credit: one-half**

Students study the ways people behave in groups. They examine ways that groups function in society and analyze these functions. Students develop hypotheses about people in groups and gather information to test these hypotheses.

PSYCHOLOGY (290034) Spring Only**Grades: 11, 12** **Credit: one-half**

Students examine patterns and variations of human behavior and the process of individual human development. They identify and examine the emotional, intellectual, and physical factors which influence the development of the individual human being. Students distinguish among the major schools and systems of psychology and methods of investigation.

SPECIAL EDUCATION**ADAPTED PHYSICAL EDUCATION (770011, 12, 13, 14)****Grades: 9, 10, 11, 12** **Credit: one**

Prerequisite: Students must have an Individual Education Plan (IEP) for course enrollment.

Adapted physical education is a developmental course for general education and/or special education students. The course serves students who are temporarily or permanently physically disabled or have deficiencies in motor coordination and/or physical fitness. The program is individualized and is directed toward improvement of deficiencies.

BASIC SKILLS I-IV (788981)**Grades: 9, 10, 11, 12** **Credit: one**

This elective course is designed to provide support to a student in core curricular areas and to provide direct instruction in specific learning strategies, study skills, time management, organization, and coping skills. Time is also allotted to address individual areas of need as identified in a student's Individual Educational Plan (IEP). While students may receive assistance on core curricular assignments, the course is not designed to serve as a study hall. Students enrolled in the course receive the equivalent of one period of instruction each day and earn an elective credit. This course may be taught for an elective credit all four years or more, as appropriate. Students successfully completing two years of this course will satisfy the sequential elective requirement for the Standard and Modified Standard Diplomas. (Students may be awarded a half-credit upon completion of a full semester of placement in the Basic Skills course. Such a decision is made by the guidance counselor in conjunction with the special education department chair.)

EDUCATION FOR EMPLOYMENT 2 (908561)**Grades: 9, 10, 11, 12** **Credit: one**

Prerequisite: Education for Employment 1

This course is for students with disabilities. Students learn about the world of work and may participate in a work experience as part of the instructional program. Students successfully completing this course will satisfy the sequential elective requirement for the Standard or Modified Standard diploma

EDUCATION FOR EMPLOYMENT 2 (908562)**Grades: 9, 10, 11, 12** **Credit: two**

Prerequisite: Education for Employment 1

This course is for students with disabilities. Students learn about the world of work and may participate in a work experience as part of the instructional program. Students successfully completing this course will satisfy the sequential elective requirement for the Standard or Modified Standard diploma

DEVELOPMENTAL READING (118080)**Grades: 9, 10, 11, 12** **Credit: one**

This course is designed to provide direct, explicit and intensive reading instruction to students with disabilities who are reading significantly below grade level. Basic objectives of the reading courses are focused on closing the gap between the student's present level of performance and the level of

performance needed to successfully access the general curriculum. Instruction focuses on increasing student's decoding, fluency and comprehension skills of fiction and nonfiction materials, which are based on the diagnosis of each student's needs as outlined through the student's Individual Education Program (IEP). Note: Students may receive credit for only one course with this code during high school, one year of Developmental Reading (1180). For subsequent years, the Reading Skills for Life code (7998) is recommended for use to continue to provide reading instruction for students with disabilities for which they may earn up to one elective credit per year. (Note: Reading Skills for Life 1, 2, 3, 4 with code 7998 is also used for the Life Skills elective)

FOUNDATIONS OF BIOLOGY (781180)**Grades: 9, 10, 11, 12** **Credit: one**

Foundations of Biology is a one-credit elective course designed to provide students with a fundamental understanding of living organisms and the processes of life. Emphasis is placed on scientific procedures and study of living things, cell parts and functions, plant classification and the functions of their various structures, animal classification, ecology, the human body, and the ways by which life forms reproduce, develop, and adapt to conditions in their environment. This course includes instruction on understanding the functioning and maintenance of the human body and Family Life Education. Parents have the option of withdrawing their children from any and all topics included in the Family Life Education portion. The course may be taught for elective credit for two years, as appropriate.

FOUNDATIONS OF ENGLISH 9-12 (781380)**Grades: 9, 10, 11, 12** **Credit: one**

Foundations of English, 9-12, is a one-credit elective course designed to provide students with the opportunities to achieve competencies in reading and writing, and to establish connections between classroom activities and post-secondary life experiences. Attention will be given to refining oral communication skills and written composition skills. Students will read a variety of literature, exploring literary themes in relation to real-life situations. This course may be taught for elective credit for four years or more, as appropriate.

FOUNDATIONS OF UNITED STATES AND VIRGINIA HISTORY (781480)**Grades: 9, 10, 11, 12** **Credit: one**

Foundations of United States and Virginia History is a one-credit elective course designed to provide students with a fundamental understanding of the political, economic, social and cultural growth of the United States, including the role of Virginia in this development. The material is taught through the following techniques: compare/contrast, inquiry/research, technology, reading comprehension, and problem-solving. This course may be taught for elective credit for 2 years, as appropriate.

FOUNDATIONS OF WORLD HISTORY/GEOGRAPHY (781080)**Grades: 9, 10, 11, 12** **Credit: one**

Foundations of World History/Geography is a one-credit elective course designed to provide students with a fundamental understanding of how past events influence the present day. Students explore the geography and history of Europe, Asia, Africa and Latin America through compare/contrast, inquiry/research, technology, reading comprehension and problem solving. This course may be taught for elective credit for two years, as appropriate.

INDIVIDUALIZED MATHEMATICS (312180)**Grades: 9, 10, 11, 12** **Credit: one**

Prerequisite: None

The purpose of this course is to provide instruction of elementary mathematics skills to ESOL or special education students who are functioning below the fifth grade level in mathematics. The course is designed to present the foundational skills necessary to enter Algebra I using manipulatives, special materials, and adaptive strategies. The course may include number concepts, mental mathematics, estimation, problem solving, operations, measurement, geometry, data analysis, statistics, probability, and fractions. Students may need up to two years to complete the course, but should move to the next course as soon as their mathematics skills warrant. ESOL and special education students must be enrolled in different sections. ESOL sections (312190) will emphasize language objectives in addition to mathematics objectives. For special education students, this course should be reflected in the student's IEP. This course does not meet the mathematics graduation requirements for the Standard or Advanced Studies Diploma. Students earn elective credit. This course may be added to a school program only with the approval of the Office of High School Instruction and K-12 Curriculum Services.

LIFE SKILLS (798800)**Grades: 9, 10, 11, 12****Credit: one**

This comprehensive individualized program is designed to prepare students for a style of living that will require a minimum of dependence on family. The course is geared to meet the needs of the students as they prepare to enter employment and emphasizes developing interpersonal skills, following directions, working independently, completing a task, and developing self-advocacy and other community living skills.

OFFICE TECHNOLOGY AND PROCEDURES (847162)**Grades: 9, 10, 11, 12****Credit: two**

This program offers instruction in office procedures and technology. Students learn skills in MS Office applications and perform assignments essential to the operation of the day-to-day instructional program at schools, offices, and in the business community. This course can be taken for more than one year. Students successfully completing two years of this course will satisfy the sequential elective requirement for the Standard or Modified Standard diploma.

PERSONAL AND FINANCIAL MATHEMATICS (312080)**Grades: 11, 12****Credit: one****Prerequisite: One high school mathematics course**

Students learn how to become wiser consumers in today's society. Course topics include personal money management, business procedures, transportation, budgeting, taxation, banking, and insurance. Calculators are used as a tool throughout the course. This course does not meet the mathematics graduation requirements for the Standard or Advanced Studies Diploma.

PERSONAL DEVELOPMENT (781580)**Grades: 9, 10, 11, 12****Credit: one**

This special education course is designed for students who need additional social/emotional support in order to progress in the general education curriculum because their social/emotional needs affect their school performance. Course topics include: understanding yourself, goal-setting, communication, building relationships, dealing with emotions, stress management, wellness, problem-solving, decision-making, self-advocacy, and career and transition. This course is appropriate for students who have documented social/emotional needs on their individualized education program (IEP).

REINFORCING FOUNDATIONS (781800)**Grades: 10, 11, 12****Credit: one**

Reinforcing Foundations is a one credit elective course designed to provide support to tenth, eleventh, and/or twelfth grade high school special education students who have not yet passed the eighth grade English: Reading/Literature and Research and Mathematics Standard of Learning tests and may be pursuing a modified standard diploma. This course will include skill work in reading comprehension, research, literature, computation, estimation, measurement, patterns, and basic algebra. This course may be taught for elective credit for three years, as appropriate. Students may be awarded a half-credit upon completion of a full semester of placement in Reinforcing Foundations. Such a decision is made by the school counselor in conjunction with the special education department chair.

WORK AWARENESS AND TRANSITION (907162)**Grades: 9, 10, 11, 12****Credit: two**

This option is available to high school students receiving special education services. Students explore potential career options while developing/improving skills needed for success in employment such as interpersonal/co-worker relationships. Most students participate in community work experiences as well. Students successfully completing two years of this course will satisfy the sequential elective requirement for the Standard or Modified Standard diploma.

TECHNOLOGY EDUCATION**AEROSPACE SCIENCE 1 (848726)****Grades: 11, 12****Credit: one****Prerequisite: Recommended Prerequisite Engineering (849000)****Marshall Academy**

Aerospace Science 1 is a course that allows students to study aerodynamic principles, aviation history, electrical and mechanical systems, instrumentation, flight operations, safety and security, air traffic control, airport design, economic impacts, rocketry, and satellite and space operations. Numerous lab activities include computer simulators, and model aircraft design and testing. Leading national institutions and commercial

businesses provide valuable resources and career experiences to participating students. For more information, visit the academy web site.

Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma. This course requires a student materials fee as listed in FCPS Notice 5922.

AEROSPACE SCIENCE 2 (848826)**Grades: 11, 12****Credit: one****Prerequisite: Aerospace Science 1 (848726)****Marshall Academy**

This course provides students with the opportunity to increase their depth and understanding of aerospace principles. Students may be involved with internship opportunities in a variety of areas including air traffic control, airport operations, and fixed-based operator's management. Upon successful completion of the course, students will be endorsed to take the written portion of the private pilot's examination. This is the first step to earning a private pilot's license. In addition, students will be exposed to a variety of guest speakers who will provide firsthand knowledge of the aerospace industry as well as postsecondary and career education opportunities. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. For more information, visit the academy web site.

Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. This course requires a student materials fee as listed in FCPS Notice 5922.

BASIC TECHNICAL DRAWING (843500)**Grades: 9, 10, 11, 12****Credit: one**

Students develop basic skills in drawing and study careers related to drafting through the use of Computer-Assisted Drafting (CAD) and other software applications to gain an understanding of the technical drawing processes. This course is recommended for students interested in technical drawing, interior design, fashion design, decorating, construction, architecture, or engineering careers.

Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma. This course requires a student materials fee as listed in FCPS Notice 5922.

ARCHITECTURAL DRAWING (843700)**Grades: 10, 11, 12****Credit: one****Prerequisite: Basic Technical Drawing (843500)**

Students study the history of architecture, examine various construction techniques, use Computer-Assisted Drafting (CAD) equipment, and design elements of a house. They develop working drawings and specifications as well as a scale model. Students interested in architecture or related careers will benefit from this course.

Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit. This course requires a student materials fee as listed in FCPS Notice 5922.

ENGINEERING DRAWING (843600)**Grades: 10, 11, 12****Credit: one****Prerequisite: Basic Technical Drawing (843500)**

Students gain an understanding of technical drawing careers in modern industry. The course includes engineering-drafting problems, use of Computer-Assisted Drafting (CAD) equipment, and drafting skills and techniques. Students use a handbook of standards and specifications along with other resource materials. Students interested in engineering or related careers will benefit from this course.

Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this

course in conjunction with a corresponding industry certification may qualify for a student selected verified credit. This course requires a student materials fee as listed in FCPS Notice 5922.

ADVANCED DRAWING (843800)

Grades: 11, 12

Credit: one

Prerequisite: Engineering Drawing (843600) or Architectural Drawing (843700)

Students use a graphic language for product design and technical illustration. They increase their understanding of drawing techniques learned in the prerequisite courses. They research design-related fields while identifying the role of advanced drawing and design in manufacturing and construction industry processes. They apply the design process, analyze design solutions, reverse engineer products, create 3-D solid models using Computer-Assisted Drafting (CAD), construct physical models, and create multimedia presentations of finished designs. They complete a work portfolio based on a chosen graphic project.

Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit. This course requires a student materials fee as listed in FCPS Notice 5922.

DESIGN AND TECHNOLOGY (840300)

Grades: 9, 10, 11, 12

Credit: one

Design and Technology is designed as a foundation high school course in technology education. Students use core technology knowledge to solve open-ended problems and create systems. Laboratory activities engage students in the design process through projects that integrate mathematics, science, and other core subjects. Working in groups, students build and control systems in the development of technology.

Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma. This course requires a student materials fee as listed in FCPS Notice 5922.

ELECTRONICS 1 (841600)

Grades: 9, 10, 11, 12

Credit: one

Students explore career fields in electricity and electronics. The course includes information on electrical and electronic theory and applications, computer-aided instruction and circuit simulation, components, circuitry troubleshooting, use of test instruments and lab training devices, consumer information, and career opportunities. The course covers the fundamentals of basic electronics through complex AC and DC circuit theory. Students interested in engineering or related careers will benefit from the course.

Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma. This course requires a student materials fee as listed in FCPS Notice 5922.

ENGINEERING SYSTEMS 1 (844726)

Grades: 10, 11, 12

Credit: one

Prerequisite: Basic Technical Drawing (843500) or Engineering Drawing (843600) or Engineering (849000) or two years of a laboratory science.

Marshall Academy

Engineering Systems 1 is the first year of the two-year Engineering Systems sequence designed for students exploring careers in engineering and technology who seek to enter colleges with strong science and engineering programs. Students work in teams to apply basic engineering skills and learn the principles of introductory systems engineering as they plan, develop, and execute engineering projects. Mathematics, technical research and writing, electronics, and computer-aided design programs are used in the design and construction of mechanical, air, space and robotics system models, and system prototypes. Students engage in an intensive six-week engineering competitive system project selected for the course. The course may include curriculum-related field trips, and college-oriented information seminars. Individual academies apply the curriculum in the manner that best fits local facilities and opportunities. Participating students may compete for a limited number of industry internships. For more information, visit the academy web site. **Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course will satisfy the sequential**

elective requirement for the standard or modified standard diploma. This course requires a student materials fee as listed in FCPS Notice 5922. Students successfully completing this course may be eligible for articulated credit with approved colleges or universities.

ENGINEERING SYSTEMS 2 (843326)

Grades: 11, 12

Credit: one

Prerequisite: Engineering Systems 1 (844726)

Marshall Academy

Engineering Systems 2 is the second year of the two-year Engineering Systems sequence, and is designed for students anticipating careers in science, engineering and technology who seek to enter colleges with strong science and engineering programs. The Engineering Systems 2 curriculum is heavily oriented toward engineering techniques and major system projects which address the national need for advanced energy, transportation, and space systems. Development, maintenance, and retirement of systems are studied in depth. The use of robotics as an enabling technology for advanced systems is incorporated into the course as students engage in an intensive six-week robotics competition project selected for the course. The course may include curriculum-related field trips and college-oriented information seminars. Individual academies apply the curriculum in the manner that best fits local facilities and opportunities. Students may compete for a limited number of industry internships. For more information, visit the academy web site. **Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. This course requires a student materials fee as listed in FCPS Notice 5922.**

TRADE AND INDUSTRIAL

AUTOMOTIVE COLLISION SERVICE 1 (867627)

Grades: 11, 12

Credit: two

Marshall Academy

Students are introduced to skill sets derived from industry standards in the auto body repair and restoration industry. The curriculum and laboratory activities are defined by I-CAR and include panel repairs, painting, frame and uni-body construction, steering, suspension, detailing, and welding. In addition, students are exposed to the theoretical and practical aspects of this career. For more information, visit the academy web site.

Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. This course requires a student materials fee as listed in FCPS Notice 5922.

AUTOMOTIVE COLLISION SERVICE 2 (867727)

Marshall Academy

AUTOMOTIVE TECHNOLOGY 1 (850627)

Grades: 11, 12

Credit: two

Prerequisite: Automotive Servicing (871026) (where offered at base high schools); Algebra 1

Marshall Academy

Students will study and define the eight major systems of the automobile, related tools and equipment, and the automotive industry. An emphasis will be placed on diagnosing systems, developing troubleshooting skills, and the safe use of laboratory equipment. Curriculum is developed from the National Automotive Technicians Education Foundation (NATEF) task lists. Major topics include engine performance, brakes, electrical and electronic systems, and suspension and steering systems. This course may be offered for college credit. In addition, students will be tested on NATEF criteria. For more information, visit the academy web site.

Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit. This course requires a student materials fee as listed in FCPS Notice 5922.

AUTOMOTIVE TECHNOLOGY 2 (850727)**Grades: 11, 12** **Credit: two****Prerequisite: Automotive Technology 1 (850627)****Marshall Academy**

Students will perform technical operations using digital diagnostic equipment, hand scanners, multi-meters, and a computerized data information system during laboratory procedures that are defined by the National Automotive Technicians Education Foundation (NATEF). Major topics include engine performance, brakes, electrical and electronic systems, and suspension and steering systems. In addition, students will be tested on NATEF criteria. This course may be offered for college credit. As an option, many students will have an opportunity to participate in local internship experiences. For more information, visit the academy web site.

Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit. This course requires a student materials fee as listed in FCPS Notice 5922.

AUTOMOTIVE TECHNOLOGY 3 (850827)**Grades: 11, 12** **Credit: two****Prerequisite: Automotive Technology 2 (850727)****Marshall Academy**

Students will diagnose, troubleshoot, and install components and parts, while focusing on the standards established by the National Automotive Technicians Education Foundation (NATEF). Opportunities will be provided to enhance skills and competencies. An emphasis is placed on problem-solving issues related to technological enhancements in the automotive industry. This course may be offered for college credit. As an option, many students will have an opportunity to participate in local internship experiences. For more information, visit the academy web site.

Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit. This course requires a student materials fee as listed in FCPS Notice 5922.

COSMETOLOGY 1 (852727)**Grades: 11, 12** **Credit: two****Marshall Academy**

Students learn about the characteristics of hair, product selection, and basic elements that determine hair growth, health, and appearance. In addition to up-to-date skills in hair styling and cutting, permanent waving, coloring, scalp and facial treatment, and manicuring, students will begin licensure preparation as prescribed by the Virginia Board of Cosmetology. For more information, visit the academy web site.

Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. This course requires a student materials fee as listed in FCPS Notice 5922.

COSMETOLOGY 2 (852827)**Grades: 11, 12** **Credit: two****Prerequisite: Cosmetology 1 (852727)****Marshall Academy**

Students use a laboratory setting for the study of skin, hair, nails and cosmetic chemistry. Through laboratory experiences, students will develop advanced skills and knowledge in all phases of salon industry. Students complete the required cosmetology competencies determined by the Virginia Board of Cosmetology in order to successfully pass the Virginia Cosmetology exam to qualify as a licensed cosmetologist. Students in this course will sit for the Virginia Cosmetology Licensing Exam provided they have a Social Security Number or a control number issued by the Virginia Department of Motor Vehicles as required by the Virginia Board of Cosmetology. For more information, visit the academy web site.

Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit. This course requires a student materials fee as listed in FCPS Notice 5922.

CRIMINAL JUSTICE 1 (870226)**Grades: 10, 11, 12** **Credit: one****Marshall Academy**

This course is designed for students who are considering a career in criminal justice. The course prepares students for career opportunities within the criminal justice system as well as entrance into institutions of higher learning. Specific areas of training will be provided in criminal law and investigation, security training, communications, emergency response, crimes, search and seizures, arrests, crime prevention, court procedure, and police operations. The program is structured to give students a strong academic background with the skills and knowledge necessary to meet the needs of a career in any of the cited fields. In addition, experts from various agencies provide in-depth information and experiences. For more information, visit the academy web site.

Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma. This course requires a student materials fee as listed in FCPS Notice 5922.

CRIMINAL JUSTICE 2 (870327)**Grades: 11, 12** **Credit: two****Prerequisite: Criminal Justice 1****Marshall Academy**

This course is an in-depth study of crime in America, United States' courts in action, and law enforcement efforts to deal with crime. The course will look into victimization, due process, and Constitutional laws affecting law enforcement as well as a review of sentencing offenders, parole, prison rehabilitation, and corrections of the 1990s. Included will be a view of other employment careers in private and mechanical security systems as well as local, state, and federal law enforcement. A major component of level 2 will include the work-experience component, i.e., shadowing, mentorship, etc. For more information, visit the academy web site.

Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit. This course requires a student materials fee as listed in FCPS Notice 5922.

WORLD LANGUAGES**CHINESE 1 (581026)****Grades: 9, 10, 11, 12** **Credit: one****Prerequisite: none****Marshall Academy**

Students develop the ability to communicate about themselves and their immediate environment using simple sentences containing basic language structures. This communication is evidenced in all four language skills - listening, speaking, reading and writing - with emphasis on the ability to communicate orally and in writing. Students begin to explore and study the themes of Personal and Family Life, School Life, Social Life, and Community Life.

CHINESE 2 (582026)**Grades: 9, 10, 11, 12** **Credit: one****Prerequisite: Chinese 1 or equivalency test****Marshall Academy**

Students continue to develop proficiency in all four language skills - listening, speaking, reading, and writing - with emphasis on the ability to communicate orally and in writing. They learn to function in real-life situations using more complex sentences and language structures. They read material on familiar topics and produce short writing samples. Students continue to explore as they study the themes of Home Life, Student Life, Leisure Time, and Vacation and Travel.

CHINESE 3 (583026)**Grades: 9, 10, 11, 12** **Credit: one****Prerequisite: Chinese 2 or equivalency test****Marshall Academy**

Students continue to develop and refine their proficiency in all four language skills - listening, speaking, reading, and writing - with emphasis on the ability to interact orally and in writing. They communicate using more complex language structures on a variety of topics, moving from concrete to more abstract concepts. At this level, students comprehend the main ideas

of the authentic materials that they read and hear, and they are able to identify significant details when the topics are familiar. Students gain a deeper understanding of the world around them while studying Rights and Responsibilities, Future Plans and Choices, Teen Culture, Environment, and Humanities.

CHINESE 4 (584026)

Grades: 10, 11, 12 **Credit: one**

Prerequisite: Chinese 3 or equivalency test

Marshall Academy

Students develop more sophisticated communication skills in all four areas - listening, speaking, reading and writing - with emphasis on the ability to interact orally and in writing. The authentic reading selections are emphasized at this level. Students communicate using more complex language structures and express abstract ideas with reasonable fluency. Students are able to create and listen with understanding to reports and presentations. They are also able to describe, summarize and discuss selected upper level POS themes and topics.

IB CHINESE I SL (584208)

CHINESE IB STANDARD LEVEL Part 1

Grades: 11, 12 **Credit: one/weighted +1.0**

Prerequisite: Three years of Chinese or equivalency test and permission of instructor

Marshall Academy

In this course students continue to develop their proficiency in listening, speaking, reading and writing Chinese. Students communicate using more complex structures in the language on a variety of topics, moving from concrete to more abstract concepts. Students continue to develop the ability to comprehend the main ideas of authentic materials that they read and hear and to identify significant details when the topics are familiar. Chinese language is used extensively in the class as students develop the ability to discuss topics related to historical and contemporary events and issues. IB Chinese focuses on mastery of simplified Chinese characters and the Pinyin Romanization system. The language learning process integrates basic aspects of the geography, customs and culture of China. Students are required to take the standard level IB Chinese exam in the spring following enrollment.

IB CHINESE II SL (585208)

CHINESE IB STANDARD LEVEL Part 2

Grades: 11, 12 **Credit: one/weighted +1.0**

Marshall Academy

IB Chinese, Part 2 is the second segment of a two-year series that prepares students to take the IB Chinese Exam. The development of all language skills - listening, speaking, reading, writing - continues, with emphasis on using the language in realistic contexts with authentic materials, to include films, recordings, newspapers and magazines. Selected literary works are included. Examples and questions from past IB exams are used as learning tools at appropriate times throughout the course. Students are required to take the standard level examination.

FRENCH 1 (511000)

Grades: 8, 9, 10, 11, 12 **Credit: one**

Prerequisite: none

Students develop the ability to communicate about themselves and their immediate environment using simple sentences containing basic language structures. This communication is evidenced in all four language skills - listening, speaking, reading and writing - with emphasis on the ability to communicate orally and in writing. Students begin to explore and study the POS themes of Personal and Family Life, School Life, Social Life, and Community Life. For middle school students, this credit becomes a part of the high school transcript, is included in the determination of the high school grade point average (GPA), and counts toward fulfilling the world languages requirement of the high school Advanced Studies diploma. It also counts toward the total number of credits required for graduation.

FRENCH 2 (512000)

Grades: 9, 10, 11, 12 **Credit: one**

Prerequisite: Level 1 or equivalency test

Students continue to develop proficiency in all four language skills - listening, speaking, reading, and writing - with emphasis on the ability to communicate orally and in writing. They learn to function in real-life situations using more complex sentences and language structures. They read material on familiar topics and produce short writing samples. Students continue to explore as they study the POS themes of Home Life, Student Life, Leisure Time, and Vacation and Travel.

FRENCH 3 (513000)

Grades: 9, 10, 11, 12 **Credit: one**

Prerequisite: Level 2 or equivalency test

Students continue to develop and refine their proficiency in all four language skills - listening, speaking, reading and writing - with emphasis on the ability to interact orally and in writing. They communicate using more complex language structures on a variety of topics, moving from concrete to more abstract concepts. At this level, students comprehend the main ideas of the authentic materials that they read and hear and are able to identify significant details when the topics are familiar. Students gain a deeper understanding of the world around them while studying the POS themes of Rights and Responsibilities, Future Plans and Choices, Teen Culture, Environment, and Humanities.

IB FRENCH I SL (514208)

FRENCH IB STANDARD LEVEL

Grades: 11, 12 **Credit: one/weighted +1.0**

Prerequisite: Three years of French or equivalency test and permission of instructor

In this course students continue their development of proficiency in listening, speaking, reading and writing French. Emphasis is placed on using these skills in realistic contexts utilizing authentic materials, to include recordings, films, newspapers and magazines, in addition to selected literary works. Examples and questions from past IB exams are used as learning tools at appropriate times throughout the course. IB French, Part 1, together with IB French, Part 2, prepares students to take the IB French standard level examination.

IB FRENCH II SL (515208)

FRENCH IB STANDARD LEVEL

Grades: 11, 12 **Credit: one/weighted +1.0**

Prerequisite: Four years of French or equivalency test and permission of instructor. IB French, Part 1 is preferred immediately prior to this course.

IB French, Part 2 is the second segment of a two-year series that prepares students to take the IB French Exam. The development of all language skills - listening, speaking, reading, writing - continues, with emphasis on using the language in realistic contexts with authentic materials, to include films, recordings, newspapers and magazines. Selected literary works are included. Examples and questions from past IB exams are used as learning tools at appropriate times throughout the course. Students are required to take the standard level examination.

IB FRENCH II HL (515209)

FRENCH IB HIGHER LEVEL

Grades: 12 **Credit: one/weighted +1.0**

Prerequisite: Four years of French or equivalency test and permission of instructor. IB French part 1 is preferred immediately prior to this course.

IB French, Part 2 is the second segment of a two-year series that prepares students to take the IB French Exam. The development of all language skills - listening, speaking, reading, writing - continues, with emphasis on using the language in realistic contexts with authentic materials, to include films, recordings, newspapers and magazines. Selected literary works are included. Examples and questions from past IB exams are used as learning tools at appropriate times throughout the course. Students are required to take the higher level examination.

LATIN 1 (531000)

Grades: 8, 9, 10, 11, 12 **Credit: one**

Prerequisite: none

Students learn basic language structures and essential elements of Latin pronunciation in order to be able to read simple passages in Latin. The relationship of English to Latin is emphasized in vocabulary building, word derivation, and meanings of prefixes and suffixes. Language structures and syntax are developed through the study of literary passages. The geography, history, government and the culture of the Roman Empire are studied. For middle school students, this credit becomes a part of the high school transcript, is included in the determination of the high school grade point average (GPA), and counts toward fulfilling the world languages requirements of the high school Advanced Studies diploma. It also counts toward the total number of credits required for graduation.

LATIN 2 (532000)

Grades: 9, 10, 11, 12 **Credit: one**

Prerequisite: Level 1 or equivalency test

Students learn additional vocabulary, more complex language structures and syntax in order to be able to read more challenging passages in Latin. Language structures and syntax are developed through the study of literary

passages. Students continue to explore as they study Roman life and Rome's contribution to our civilization.

IB LATIN I SL (537008)
LATIN IB STANDARD LEVEL

Grades: 11, 12 **Credit: one/weighted +1.0**

Prerequisite: Three years of Latin or equivalency test and permission of instructor

This course focuses on the work of Ovid and Vergil, with emphasis placed on refining the student's ability to comprehend and interpret Latin poetry. It includes the study of literary techniques and poetic devices used by Roman authors, the life and times of Vergil, his influence on later writers, and the literary importance of the Aeneid. IB Latin, Part 1, together with IB Latin, Part 2, prepares students to take the IB standard level Latin examination.

IB LATIN II SL (538008)
LATIN IB STANDARD LEVEL

Grades: 12 **Credit: one/weighted +1.0**

Prerequisite: Four years of Latin or equivalency test and permission of instructor. IB Latin, Part 1 is preferred immediately prior to this course.

IB Latin, Part 2, is the second segment of a two-year series that prepares students to take the IB Latin Exam. The course continues to focus on the work of Ovid and Vergil, with emphasis placed on refining the student's ability to comprehend and interpret Latin poetry. It includes the study of literary techniques and poetic devices used by Roman authors, the life and times of Vergil, his influence on later writers, and the literary importance of the Aeneid. Students are required to take the standard level examination.

SPANISH 1 (551000)

Grades: 8, 9, 10, 11, 12 **Credit: one**

Prerequisite: none

Students develop the ability to communicate about themselves and their immediate environment using simple sentences containing basic language structures. This communication is evidenced in all four language skills - listening, speaking, reading and writing - with emphasis on the ability to communicate orally and in writing. Students begin to explore and study the POS themes of Personal and Family Life, School Life, Social Life, and Community Life. For middle school students, this credit becomes a part of the high school transcript, is included in the determination of the high school grade point average (GPA), and counts toward fulfilling the world languages requirements of the high school Advanced Studies diploma. It also counts toward the total number of credits required for graduation.

SPANISH 2 (552000)

Grades: 9, 10, 11, 12 **Credit: one**

Prerequisite: Level 1 or equivalency test

Students continue to develop proficiency in all four language skills - listening, speaking, reading, and writing - with emphasis on the ability to communicate orally and in writing. They learn to function in real-life situations using more complex sentences and language structures. They read material on familiar topics and produce short writing samples. Students continue to explore as they study the POS themes of Home Life, Student Life, Leisure Time, and Vacation and Travel.

SPANISH 3 (553000)

Grades: 9, 10, 11, 12 **Credit: one**

Prerequisite: Level 2 or equivalency test

Students continue to develop and refine their proficiency in all four language skills - listening, speaking, reading and writing - with emphasis on the ability to interact orally and in writing. They communicate using more complex language structures on a variety of topics, moving from concrete to more abstract concepts. At this level, students comprehend the main ideas of the authentic materials that they read and hear and are able to identify significant details when the topics are familiar. Students gain a deeper understanding of the world around them while studying the POS themes of Rights and Responsibilities, Future Plans and Choices, Teen Culture, Environment, and Humanities.

IB SPANISH I SL (554208)

SPANISH IB STANDARD LEVEL

Grades: 11, 12 **Credit: one/weighted +1.0**

Prerequisite: Three years of Spanish or equivalency test and permission of instructor

In this course students continue their development of proficiency in listening, speaking, reading and writing Spanish. Emphasis is placed on using these skills in realistic contexts utilizing authentic materials; to include recordings, films, newspapers and magazines in addition to selected literary works. Examples and questions from past IB exams are used as learning tools at appropriate times throughout the course. IB Spanish, Part 1,

together with IB Spanish, Part 2, prepares students to take the IB Spanish standard level examination.

IB SPANISH II SL (555208)
SPANISH IB STANDARD LEVEL

Grades: 11, 12 **Credit: one/weighted +1.0**

Prerequisite: Four years of Spanish or equivalency test and permission of instructor. IB Spanish, Part 1 is preferred immediately prior to this course.

IB Spanish, Part 2, is the second segment of a two-year series that prepares students to take the IB Spanish Exam. The development of all language skills-listening, speaking, reading, writing-continues, with emphasis on using the language in realistic contexts with authentic materials, to include films, recordings, newspapers and magazines. Selected literary works are included. Examples and questions from past IB exams are used as learning tools at appropriate times throughout the course. Students are required to take the standard level examination.

IB SPANISH I HL (555209)
SPANISH IB HIGHER LEVEL

Grades: 12 **Credit: one/weighted +1.0**

IB Spanish, Part 2, is the second segment of a two-year series that prepares students to take the IB Spanish Exam. The development of all language skills-listening, speaking, reading, writing-continues, with emphasis on using the language in realistic contexts with authentic materials, to include films, recordings, newspapers and magazines. Selected literary works are included. Examples and questions from past IB exams are used as learning tools at appropriate times throughout the course. Students are required to take the higher level examination.

SPANISH FOR FLUENT SPEAKERS 1 (551100)

Grades: 8, 9, 10, 11, 12 **Credit: one**

Prerequisite: Permission from instructor

This course offers fluent speakers of Spanish the opportunity to strengthen their basic skills in reading and writing Spanish. The students learn about the Hispanic contributions to the English language and American culture. The students also study the major historical figures and events of Spanish-speaking countries. The course is conducted in Spanish and counts toward fulfilling the world languages requirement. Middle School: credit becomes a part of the high school transcript, is included in the determination of the high school grade point average (GPA), and counts toward fulfilling the world languages requirements of the high school Advanced Studies diploma. It also counts toward the total number of credits required for graduation.

SPANISH FOR FLUENT SPEAKERS 2 (552100)

Grades: 8, 9, 10, 11, 12 **Credit: one**

Prerequisite: Spanish for Fluent Speakers 1 or permission from instructor

This course, designed for fluent speakers of Spanish, continues to emphasize the improvement of students' skills in speaking, reading, and writing in Spanish. Students read and critique contemporary short stories and make oral presentations. The writing and reading processes are emphasized to ensure growth in both skills. The students will also study various Hispanic personalities and historic events of Spanish-speaking countries. The course is conducted in Spanish. Middle School: credit becomes a part of the high school transcript, is included in the determination of the high school grade point average (GPA), and counts toward fulfilling the world languages requirements of the high school Advanced Studies diploma. It also counts toward the total number of credits required for graduation.

SPANISH FOR FLUENT SPEAKERS 3 (553100)

Grades: 8, 9, 10, 11, 12 **Credit: one**

Prerequisite: Spanish for Fluent Speakers 2 or permission from instructor

This course, designed for speakers of Spanish, continues to emphasize the refinement of proficiency in reading, writing, and speaking Spanish. Students develop research skills through the reading and critiquing of literary works. The influence of Hispanic culture in contemporary American society is highlighted. The course is conducted in Spanish and counts toward fulfilling the world languages requirement of the high school Advanced Studies diploma.

IB SPANISH FOR FLUENT SPEAKERS I SL (554108)

SPANISH IB A2 STANDARD LEVEL

Grades: 11, 12 **Credit: one/weighted +1.0**

Prerequisite: Spanish for Fluent Speakers 3 or the equivalent and permission of the instructor.

In this course, fluent speakers of Spanish continue a focus on language and literature following the prescribed IB guidelines for Language A2. They further develop their creative and critical thinking abilities, increasing the

skills and knowledge necessary to be contributing world citizens and life-long learners. IB Diploma candidates can qualify for the Bilingual IB Diploma upon successful completion of this course and the A2 Spanish exam. This course along with IB Spanish for Fluent Speakers, Part 2, prepares students to take the IB A2 standard level exam in Spanish.

IB SPANISH FOR FLUENT SPEAKERS II HL (555109)

SPANISH IB A2 HIGHER LEVEL

Grades: 12 **Credit: one/weighted +1.0**

Prerequisite: IB Spanish for Fluent Speakers, Part I

This course is the second of a two-year series in the IB A2 program in Spanish. The IB A2 program gives students the opportunity to reach a high level of competence in a second language while at the same time learning to appreciate the range of issues generated by the study of language and culture. IB A2 Spanish is designed for students with a high level of competency in Spanish and continues with the study of the Topic Options and the Literary Text Options begun in the first year. The course also extends the personal dossier of work as required by IB. IB Diploma candidates may qualify for the Bilingual IB Diploma upon successful completion of this course and the IB exam. Students are required to take the higher level examination.

A SELECTION OF COURSES OFFERED AT CHANTILLY, FAIRFAX AND FALLS CHURCH ACADEMIES

ANIMAL SCIENCE 1 (831027)

Grades: 10, 11, 12 **Credit: two**

Chantilly Academy - transportation may be provided

Students interested in studying animals and desiring experience in the care of a variety of animals will benefit from this course. The course is designed for students interested in a career in the animal health care field. Core curriculum includes animal anatomy, animal behavior, handling techniques, nutrition, disease pathology, sanitation, and disease control. Students gain hands-on experience working with laboratory animals. Students must purchase a lab apron and provide proof of current tetanus immunization for this course. For more information, visit the academy web site.

Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. This course requires a student materials fee as listed in FCPS Notice 5922.

ANIMAL SCIENCE 2 (831127)

Available at Chantilly Academy - transportation may be provided

DENTAL CAREERS 1 (832827)

Grades: 11, 12 **Credit: two**

Chantilly and Falls Church Academies - transportation may be provided

Dental Careers 1 is the first-level course of a two-year dental assisting program. The course content focuses on introducing all dental-related careers as well as competencies necessary to manage a dental office. The curriculum includes head and neck anatomy, infection control, tooth charting, and instrumentation. The dental skills relevant to the curriculum are practiced in a classroom dental clinic. Lab coats or scrubs must be purchased for this class. For more information, visit the academy web site.

Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. This course requires a student materials fee as listed in FCPS Notice 5922.

EXPLORING HEALTH SCIENCES (830226)

Grades: 10, 11, 12 **Credit: one**

Chantilly and Falls Church Academies - transportation may be provided
Please use course code 830226 for the semester course.

This is part one (fall semester) of a two-part, full-year course. Students must also register for part two, Exploring the Language of Medicine for the spring semester. It introduces the student to health care careers and develops basic skills common to all health and medical sciences. It is recommended as the first course for other health and medical sciences courses. This course focuses on exploring health careers, communication skills, safety, first aid, and Healthcare Provider CPR. It is offered at Chantilly, Falls Church, and West Potomac Academies. For more information, visit the academy web site. **Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course**

within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma.

EXPLORING THE LANGUAGE OF MEDICINE (838326)

Grades: 10, 11, 12 **Credit: one**

Prerequisite: Exploring Health Sciences

Chantilly and Falls Church Academies - transportation may be provided
Please use course code 838326 for the semester course.

This is part two (spring semester) of a two-part, full-year course. Students must also register for part one, Exploring Health Sciences for the fall semester. This course builds on the foundations of the Exploring Health Sciences course. Exploring the Language of Medicine is designed to help students learn medical terminology. It is presented in logical order, beginning with each body system's anatomy and physiology and progressing through pathology, diagnostic procedures, therapeutic interventions, and pharmacology. Concepts, terms, and abbreviations are also presented to the students. It is offered at Chantilly, Falls Church and West Potomac Academies. For more information, visit the academy web site.

Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma.

FASHION DESIGN 1 (828027)

Grades: 11, 12 **Credit: two**

Prerequisite: Art 1 (912000), Fashion Marketing (814000), or Introduction To Interior And Fashion Design (825432). A performance review may be required.

Fairfax Academy - transportation may be provided

The Fashion Design 1 students will begin to explore an in-depth creative process and develop technical and presentation skills in the field of fashion design. The program will emphasize design concepts, sketching, draping, pattern making, and garment construction. These skills will enable the student to design and construct a project from creative conception to completion. (Students interested in this course should also see Fashion Marketing 1 under Marketing.) For more information, visit the academy web site. **Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. This course requires a student materials fee as listed in FCPS Notice 5922.**

FASHION DESIGN 2 (828127)

Grades: 11, 12 **Credit: two**

Prerequisite: Fashion Design 1 (848027) or Portfolio Review (examples of student work) and/or a performance review may be required.

Fairfax Academy - transportation may be provided

The Fashion Design 2 curriculum will continue to foster and explore the creative process and develop advanced technical skills in the field of fashion design. The student will build on existing skills in the areas of design concepts, sketching, pattern making, and garment construction. These skills will enable the student to develop a fashion portfolio and to execute a fashion line from conception to completion. Students will begin to develop a level of professionalism that is standard in the industry. (Students interested in this course should also see Fashion Marketing 1 under Marketing.) For more information, visit the academy web site.

Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. This course requires a student materials fee as listed in FCPS Notice 5922.

FIRE AND EMERGENCY MEDICAL SCIENCES 1 (833326)

Grades: 11, 12 **Credit: one**

Prerequisite: Exploring Health Sciences and Exploring the Language of Medicine are recommended but not required.

Falls Church Academy - transportation may be provided

This is part one (fall semester) of a two-part, full-year course. Students must also register for part two, Fire and Emergency Medical Sciences 2 for the spring semester. Fire and Emergency Medical Sciences prepares the student to enter the workforce or pursue further education in the field of Emergency Medical Services (EMS) and Fire Science. The principles and practices of emergency response and fire fighting will be explored under the direct supervision of a certified EMT-B instructor. The curriculum consists of planned learning experiences in the classroom, laboratory, and faculty supervised clinical settings. Students will have the opportunity to observe and interact with a variety of patients experiencing varying degrees of injury or disease that are carefully selected to provide appropriate clinical learning experiences. As preparation, students will be provided with ample lab

practice to fully prepare them for the clinical experience and minimize risks. During the course of study, students will have the opportunity to earn the following five certifications: Healthcare Provider CPR, Emergency Medical Technician-Basic (EMT-B), and Hazardous Materials Response, Bloodborne Pathogens, and Community Emergency Response Team (CERT). Offsite clinical lab opportunities at Northern Virginia Community College, Medical Education Center (NVCC MEC), and Fairfax County Fire and Rescue Academy will be available to the students. Students must purchase uniforms and liability insurance and meet current health agency requirements to participate in clinical experiences. Validated credit may be an option with NVCC. For more information, visit the academy web site.

Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma. This course requires a student materials fee as listed in FCPS Notice 5922.

FIRE AND EMERGENCY MEDICAL SCIENCES 2 (833426)

Grades: 11, 12 Credit: one

Prerequisite: Fire & Emergency Medical Sciences 1 (833326)

Falls Church Academy - transportation may be provided

This is part two (spring semester) of a two-part, full-year course. Students must also register for part one, Fire and Emergency Medical Sciences 1 for the fall semester. Fire and Emergency Medical Sciences prepares the student to enter the workforce or pursue further education in the field of Emergency Medical Services (EMS) and Fire Science. The principles and practices of emergency response and fire fighting will be explored under the direct supervision of a certified EMT-B instructor. The curriculum consists of planned learning experiences in the classroom, laboratory, and faculty supervised clinical settings. Students will have the opportunity to observe and interact with a variety of patients experiencing varying degrees of injury or disease that are carefully selected to provide appropriate clinical learning experiences. As preparation, students will be provided with ample lab practice to fully prepare them for the clinical experience and minimize risks. During the course of study, students will have the opportunity to earn the following five certifications: Healthcare Provide CPR, Emergency Medical Technician-Basic (EMT-B), and Hazardous Materials Response, Bloodborne Pathogens, and Community Emergency Response Team (CERT). Offsite clinical lab opportunities at Northern Virginia Community College, Medical Education Center (NVCC MEC), and Fairfax County Fire and Rescue Academy will be available to the students. Students must purchase uniforms and liability insurance and meet current health agency requirements to participate in clinical experiences. Validated credit may be an option with NVCC. For more information, visit the academy web site.

Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit. This course requires a student materials fee as listed in FCPS Notice 5922.

MUSIC AND COMPUTER TECHNOLOGY 1 (922527)

Grades: 11, 12 Credit: two

Prerequisite: Advanced Music Theory or a music theory background (Interview may be required with the instructor.)

Fairfax Academy - transportation may be provided

Students will explore the use of computers and other electronic technologies in music including: Musical Instrumental Digital Interface (MIDI), analog and digital synthesis, sequencing, acoustics, sound processing, and electronic musical composition using the latest music industry software and the internet. For more information, visit the academy web site.

This course requires a student materials fee as listed in FCPS Notice 5922.

MUSIC AND COMPUTER TECHNOLOGY 2 (922627)

Grades: 12 Credit: two

Prerequisite: Music and Computer Technology 1

Fairfax Academy - transportation may be provided

Students will expand on the use of computers and other electronic technologies developed in Music and Computer Technology I. They will build on skills developed in Music and Computer Technology I, including: Musical Instrumental Digital Interface (MIDI), analog and digital synthesis, sequencing, acoustics, sound processing, and electronic musical composition using the latest music industry software and the internet. For more information, visit the academy web site. **This course requires a student materials fee as listed in FCPS Notice 5922.**

PHARMACY TECHNICIAN 1 (830526)

Grades: 11, 12 Credit: one

Prerequisite: Exploring Health Sciences and Exploring the Language of Medicine are recommended but not required.

Chantilly and Falls Church Academies - transportation may be provided

This is part one (fall semester) of a two-part, full-year course. Students must also register for part two, Pharmacy Technician 2 for the spring semester. The Pharmacy Technician course incorporates both classroom and clinical pharmacy experiences. The student will be given the opportunity to meet state pharmacy technician competencies as well as be exposed to the larger arena of pharmacy careers. Students in this course are eligible to sit for the Virginia Pharmacy Technician Certification provided they have a Social Security Number or a control number issued by the Virginia Department of Motor Vehicles as required by the Virginia Board of Pharmacy. For more information, visit the academy web site.

Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma. This course requires a student materials fee as listed in FCPS Notice 5922.

PHARMACY TECHNICIAN 2 (830626)

Available at Chantilly and Falls Church Academies - transportation may be provided

PRACTICAL NURSING 1 (835726)

Grades: 12 Credit: one

Prerequisite: Biology 1 and Algebra 1. Exploring Health Sciences and Exploring the Language of Medicine are recommended but not required.

Falls Church Academy - transportation may be provided

This is part one (fall semester) of a two-part, full-year course. Students must also register for part two, Practical Nursing 2 for the spring semester. This course offers preclinical nursing instruction during the student's senior year of high school. Foundations of nursing including communication, anatomy and physiology, and medical math, are the main units of focus. Competency-based instruction provides students with the skills needed to provide basic bedside nursing care used for hospitalized, nursing home, and homebound patients. Following successful completion of Practical Nursing 1 and 2, students electing to participate in the summer clinical are eligible to take the Certified Nursing Assistant (CNA) exam. Classes are held at Falls Church High School while community healthcare agencies serve as sites for the practical application of the learned competencies. Students must purchase uniforms and liability insurance and meet current health agency requirements to participate in clinical experiences. Eligibility for acceptance into nursing program includes strong algebra and biology grades, attendance, and student statement/essay. Successful completion of the Practical Nursing 1 and 2 courses allows students to take a nine-month, full-time postgraduate clinical internship program. The postgraduate clinical internship curriculum enables students to demonstrate advanced nursing competencies. Students in this course are eligible to sit for the Virginia Practical Nursing Licensing Exam (NCLEX) provided they have a Social Security Number or a control number issued by the Virginia Department of Motor Vehicles as required by the Virginia Board of Nursing. For more information, visit the academy web site.

Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma. This course requires a student materials fee as listed in FCPS Notice 5922.

PRACTICAL NURSING 2 (835826)

Grades: 12 Credit: one

Prerequisite: PRACTICAL NURSING 1 (835726)

Falls Church Academy - transportation may be provided

This is part two (spring semester) of a two-part, full-year course. Students must also register for part one, Practical Nursing 1 for the fall semester. This course offers preclinical nursing instruction during the student's senior year of high school. Foundations of nursing including communication, anatomy and physiology, and introduction to pharmacology, are the main units of focus. Competency-based instruction provides students with the skills needed to provide basic bedside nursing care used for hospitalized, nursing home, and homebound patients. Following successful completion of Practical Nursing 1 and 2, students electing to participate in the summer clinical are eligible to take the Certified Nursing Assistant (CNA) exam. Classes are held at Falls Church High School while community healthcare agencies serve as sites for the practical application of the learned competencies. Students must purchase uniforms and liability insurance and

